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December 14, 2023

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

Dear Ms. Marconi,

RE: EB-2022-0157 Enbridge Gas Inc. Panhandle Regional Expansion Project Argument Submission of Energy Probe

Attached is the argument submission of Energy Probe in the in the EB-2022-0157 Panhandle Regional Expansion Project Leave to Construct proceeding.

Respectfully submitted on behalf of Energy Probe.

Tom Ladanyi TL Energy Regulatory Consultants Inc.

cc. Patricia Adams (Energy Probe Research Foundation) Zora Crnojacki (OEB Staff) Haris Ginis (Enbridge Gas Inc.) Michael Millar (OEB Staff) Parties to the Proceeding

Energy Probe Research Foundation 417 Bloor Street West, Suite 202, Toronto, Ontario, M5S 1X6

EB-2022-0157

ONTARIO ENERGY BOARD

IN THE MATTER OF the *Ontario Energy Board Act, 1998*, S.O. 1998, c. 15, Schedule B; and in particular, section 90(1) and section 97 thereof; **AND IN THE MATTER OF** an application by Enbridge Gas Inc. for an order granting leave to construct natural gas pipelines in the Municipality of Chatham Kent and Essex County.

Enbridge Gas Inc. Panhandle Regional Expansion Project LTC

Energy Probe Argument

December 14, 2023

Energy Probe Argument

Executive Summary

In this application, Enbridge Gas is seeking Leave to Construct approval from the OEB for its \$358 million Panhandle Regional Expansion Project consisting of 19 km of NPS 36 diameter pipeline. The pipeline is primarily required to provide additional volumes of gas to large volume contract rate customers in the Windsor and Leamington area. The customers consist of power generators, greenhouse vegetable growers, a food processor, and a battery plant for electric vehicles.

The revenues paid in rates by the customers served by the pipeline will be insufficient to cover its owning and operating costs. According to the economic discounted cash flow (DCF) analysis based on 40 years of costs and revenues filed by Enbridge, the Panhandle Regional Expansion Project has a large negative net present value (NPV) and would require a subsidy from Enbridge ratepayers for more than 40 years which would place an undue burden on them.

Energy Probe believes in the user pay principle. The customers that will be served by this pipeline should pay for it. Since proposed rates are inadequate, the customers served by the pipeline should pay a contribution in aid of construction to cover its cost. That contribution should be designed based on 20 years of costs and revenues to bring the project to an NPV of 0.0 at 20 years. Energy Probe submits that a 20-year horizon is more appropriate than a 40-year horizon. More than 94 percent of the gas demand of this pipeline is for large volume contract rate gas customers, and there are uncertainties about government plans regarding natural gas use and the long-term viability of greenhouse businesses, power generators, and battery manufacturers that depend on gas,

Energy Probe submits that the OEB should approve the Panhandle Regional Expansion Project pipeline if the customers served by the project are willing to pay for it. If the customers served by the Panhandle pipeline are unwilling to pay for it, then there is no need for the pipeline or OEB approval.

Regulatory Background

On June 10, 2022, Enbridge applied to the OEB for a Leave to Construct (LTC) approval of its Panhandle Regional Expansion Project. On December 5, 2022, Enbridge asked the OEB to put the application in abeyance which the OEB granted. On June 16, 2023, Enbridge filed its updated application which is the subject of this argument.

The original application was for approval of construction of a 19 km pipeline of NPS 36 diameter from its existing Dover Transmission Station in the Municipality of Chatham-Kent to a new valve site in the Municipality of Lakeshore to be in service November 1, 2023, and a 12 km of NPS 16 natural gas pipeline in the Municipality of Lakeshore, the Town of Kingsville, and the Municipality of Leamington with in service date of November 1, 2024. Both pipelines would have the same maximum operating pressure (MOP) of 6040 kPa. Included in the project were ancillary measurement, pressure regulation, and station facilities. The proposed Project was estimated to cost \$314.4 million and was designed to serve the increased demands for firm service from the greenhouse, automotive, and power generation sectors in the Panhandle area.

Following interrogatories, the OEB held a Technical Conference for the original application in October 2022. As indicated above, in December 2022 the OEB placed the proceeding on the application in abeyance at the request of Enbridge which indicated that it intended to update its application due to changed circumstances.

Enbridge filed its updated application in June 2023 and the proceeding resumed. The updated application, filed June 16, 2023, was the same as the original application except that the inservice date for 19 km of NPS 36 pipeline has been postponed by a year to November 1, 2024, and 12 km of NPS 16, called Learnington Interconnect, was no longer included in the project. Even though the scope of the project was reduced, the cost estimate increased from \$314 million to \$358 million. Oral hearing was in November 2023.

Issues

In Procedural Order No.6 issued on July 28, 2023, the OEB indicated that it intends to follow its standard Issues List for natural gas leave to construct applications. Energy Probe will make submissions on the following issues: Need for the Project, Project Alternatives, Project Costs and Economics.

Need for the Project

The need for the project is overwhelmingly driven by Contract rate customers. Their forecast demand makes up approximately 94% of the capacity of the proposed Project¹. General Service customers are responsible for only 6% of the forecast demand. That forecast does not include a large contract rate customer, the NextStar/ Stellantis large EV battery plant². If that plant is included the percentage of the load of contract rate customers is higher and the percentage of the load of general service customers is lower.

Enbridge Gas is requesting a minimum of five-year contracts from interested contract rate customers for capacity on the Panhandle System starting in November 2024. There are a total of

¹ AIC Page 4

² Tr. Vol. 2, Pages 7 and 72

27 contract rate customers (not including NextStar/ Stellantis), consisting of 3 power generators, 1 food and beverage, and 23 greenhouse customers.³

There are conditions precedent within each of the distribution contracts that have been executed to date stipulating that Enbridge's ability to honor the contract is contingent on receiving approval from the Ontario Energy Board.⁴

One such distribution contract is with Atura for gas supply to its Brighton Beach Generating Station (BBGS)⁵, which Enbridge claims has the same conditions precedent as the T2 contract template filed in response to an interrogatory.⁶

Atura has entered into a five-year gas storage and distribution T2 contract with Enbridge for firm capacity. The T2 contract commences July 16th, 2024, coincident with the term of Atura's new contract with the IESO. Atura is also negotiating with Enbridge for additional firm capacity commencing in 2025, related to the Brighton Beach efficiency upgrade. Together these two contracts represent almost 40 percent of the total incremental capacity of the project and almost 50 percent of the current demand for the project.⁷

According to Enbridge, its distribution contracts specify a delivery pressure of 1724 kPa (250 psi) to BBGS and to the nearby West Windsor Power Generation (WWPG)⁸ owned by Capital Power, conditions which can only be met with the proposed NPS 36 pipeline.

Apart from the above contract customers who make up vast majority of the demand, there are prospective general service customers who will cause a small percent of the demand. These customers are assumed by Enbridge to be residential new construction customers who will use natural gas for space and water heating and possibly cooking. Enbridge has not made any assumptions regarding the use of hybrid systems that would use electric heat pump and gas. In its pre-filed evidence Enbridge did not provide its customer attachment forecast ⁹ in support of its demand forecast for general service customers.

Energy Probe Submission

Energy Probe believes that this is a distribution project since its main purpose is to provide distribution service to certain large volume customers. This can be seen from the In-franchise Binding Open Season offer¹⁰ which refers to "distribution" in 12 places and does not mention transmission at all. Also, based on this evidence it appears that Enbridge sought to create a

³ I.STAFF.24, Table 1, Pages 2 and 3

⁴ TC Tr. Vol.1, Page 29

⁵ JT 1.1

⁶ Exhibit I.PP.5 Attachment 1, Page 52

⁷ Tr.Vol.1, Page 17

⁸ Exhibit I, FRPO.13, Page 2; TC Tr, Page 33.

⁹ Exbibit B, Tab 1, Schedule 1, pages 9 to 11

¹⁰ K2.2, Tab 3, EB-2022-0157, Exhibit B, Tab 1, Schedule 1, Attachment 2, Pages 1 to 4, Tab 3, Filed 2022-06-10, "Panhandle Regional Expansion Project, In Franchise Binding Reverse Open Season."

market for the Panhandle Regional Expansion Project to justify building a larger diameter pipeline than necessary which made the project even less economical.

Because of the location of BBGS and WWPG, the delivery pressure to BBGS is what is largely driving the need for this project. Were it not for the BBGS, the delivery pressure to WWPG could be met with the existing system.¹¹

MR. CIUPKA: Matt Ciupka, Enbridge Gas. The other power generators in the area are already on existing distribution contracts that do not require facilities built at this time to honour the contract parameters in the contract.

MR. BROPHY: Okay. So then if this project wasn't approved and built, it would have no impact to any of the power generators other than Brighton Beach. Is that what you are saying?

MR. CIUPKA: Correct.

Based on public information, BBGS uses two gas turbines to generate electricity. Power turbine operators generally have a fuel gas booster compressor to ensure that the fuel gas delivered to the burners in the gas turbine is at the pressure required for its operation. It is possible that the delivery pressure need by BBGS could have been met by operation of its exiting fuel gas booster compressor or by the installation of a different compressor, but Enbridge did not explore these alternatives in its negotiations with Atura, the owner of BBGS.¹²

The NextStar / Stellantis EV battery plant will need a lot of gas, but Enbridge has not included its volumes in its forecast¹³ and would not disclose the delivery pressure needs or the volumes required by NextStar / Stellantis.¹⁴

The pipeline is also needed to supply gas to 23 greenhouse operators.¹⁵ Their gas needs are identified in the Posterity Report but were not specified in the OGVG evidence¹⁶ or in the oral testimony of the OGVG expert witness¹⁷. From the evidence one can conclude that greenhouse operators want a lot of gas to make a large profit growing out of season vegetables. If they cannot get the gas or if it costs them too much money to get it, then they will not invest money in Ontario.

It is not clear from the evidence if the contracts with the food processor customer and the 23 greenhouse customers specify a minimum delivery pressure that could not be met without the proposed NPS 36 pipeline.

¹¹ TC Tr. Page 36

¹² TC Tr. Pages 32 to 35

¹³ Exhibit B, Tab 1, Schedule 1, Page 20, Paragraph 65

¹⁴ TC Tr. Page 37

¹⁵ I.STAFF.24, Table 1, Pages 2 and 3

¹⁶ K3.2; K3.3

¹⁷ Tr. Vol. 3, Pages 131 -135

Energy Probe agrees that there is a need for a pipeline to meet the demands of contract customers. These contract customers burn gas to make a profit. As any profit-making business needing gas, they want to pay as little as possible for gas service. For example, if the owner of BBGS, Atura, pays less for gas service, it will make more money for its shareholder OPG. There is no indication that BBGS would be forced to shut down if it were required to pay a contribution.

Similarly, if greenhouse growers pay less for gas service, they will make greater profits. When asked what greenhouse growers were seeking, their spokesperson and expert witness could not provide a clear answer.¹⁸

MR. MORAN: Mr. Buonaguro, I think, if I understand Mr. Ladanyi's question, the witness has suggested that economics are an important factor in relation to future investments. And I am interpreting his question as, well, to what extent will changes in the cost of gas service affect those investment decisions, if I am capturing it correctly? Which I think is a legitimate question, based on his evidence so far.

MR. BUONAGURO: Thank you.

MR. LADANYI: Thank you. You put it much better than I could.

DR. PETRO: So, to answer your question, it depends on the individual greenhouse. It depends on the individual business. I would refer you to OGVG's growth study, which does have some of that information. It's a snapshot not only of the growth and the economic benefit, but also gives some idea of the returns that various greenhouses of various size can expect. It does vary.

MR. LADANYI: So the greenhouse growers could tolerate a small contribution charge. That would not put them out of business. And I don't know what the word "small" is, but a reasonable contribution charge, not something very onerous, wouldn't put them out of business.

DR. PETRO: They are price takers, so they provide produce, you know, at whatever price they can sell it for. Which makes the economics tricky to predict, and I am not in a position to do that.

The only conclusion one can draw from the evidence is that greenhouse growers want more gas and would not be forced out of business by having to pay a contribution.

Although the load for the NextStar / Stellantis EV battery plant was not part of the demand forecast supporting the need for the pipeline, there is also no evidence that having to pay a contribution would make it significantly less economic than it already is. The plant requires billions in subsidies from the Federal and Provincial governments and it needs to burn a lot of gas to make EV batteries. It is unlikely that having to pay a contribution to get gas service would force the plant to be abandoned.

¹⁸ Tr. Vol. 3, Pages 170-171

Since Enbridge has only provided a rough estimate of the demand by general service customers and not a detailed forecast, Energy Probe submits that it is not sufficient evidence to prove that they need the pipeline.

The need for the project should not be considered without taking into account the risk that large volume contract rate customers pose. The greenhouse business operates in a competitive market for out of season vegetables. If there is over-expansion of the greenhouse business in Ontario beyond the ability of the market to absorb the excess production, it is likely that some greenhouse operators will be forced into bankruptcy. There is a significant risk that they will not be in operation 40 years from now. Natural gas power generators are currently meeting a need for reliable power, however other sources of reliable power may replace them as technology evolves. There is also a significant risk that they will not be needed 40 years from now. Similarly, EV battery technology is likely to change over the next 40 years and the NextStar / Stellantis plant may close. If these contract customers do not need gas, ratepayers will be left paying for an oversized and underutilized pipeline. Energy Probe submits that contract rate customers should be required to pay a contribution that would make the proposed pipeline break even within the next 20 years.

Energy Probe believes that the need for the pipeline is dependent on the willingness of contract customers to bear the risk by paying for what it costs to serve them, which means paying a contribution toward the cost of the project to make it feasible within 20 years. If they are unwilling to pay such a contribution, then Enbridge has failed to prove the need for the project.

Project Alternatives

In its assessment of alternatives Enbridge evaluated facility alternatives and Integrated Resource Planning Alternatives ("IRPAs"), including supply-side IRPAs (e.g., 3rd party exchange service), demand-side Enhanced Targeted Energy Efficiency ("ETEE"), and hybrid facilities with IRPA alternatives¹⁹. In its submissions Energy Probe will only address facility alternatives and leave it to other parties to comment on others.

According to AIC, only two facility alternatives to the proposed NPS 36 pipeline were evaluated by Enbridge:

- a) Upsize of existing NPS 16 Panhandle Line or NPS 20 Panhandle Line west of Dover Transmission
- b) New LNG Plant

The original evidence also considered alternative pipe sizing by using NPS 30 pipe instead of NPS 36. It is not clear why that alternative was dropped. In its Assessment Criteria Enbridge used the following:

¹⁹ AIC Page 18, Paragraph 46.

Economic Feasibility (Quantitative): The alternative must be cost-effective compared to other alternatives, using the metrics of total cost, cost per unit of capacity and net present value ("NPV"). 20

Based on its assessment criteria, Enbridge selected the proposed 19 km of NPS 36 as the preferred alternative.

Energy Probe Submission

The NPS 36 alternative is not the lowest cost alternative nor is it the alternative with the least negative NPV.²¹ The NPS 30 alternative, which was inexplicably dropped from the analysis, is the lowest cost alternative and the alternative with the least negative NPV. Enbridge claims that the preferred alternative, NPS 36, is the alternative with the lowest cost per unit of capacity. Energy Probe notes that cost per unit of capacity is not a metric that is mentioned in EBO 134 or in EBO 188. That metric could probably be used to justify an even larger diameter pipeline such as NPS 48.

Another concern with the analysis is that in the updated application Enbridge reduced the capacity of the pipeline by 3.8 TJ/d because of the reduction of its System Wide Average Heating Value (SWAHV)²². Enbridge calculates SWAHV on an annual system wide basis²³. As the evidence shows, the variation of the SWAHV on an annual basis can have significant impact on pipeline capacity to deliver energy to customers. Energy Probe believes that there are heating value differences between delivery points which Enbridge confirmed²⁴, and that Enbridge has failed to adequately take these differences into account in its analysis of project alternatives. For example, if the gas volumes coming from the US at Dawn had a higher heating value, it would make a smaller diameter pipeline, such as NPS 30 even more attractive.

Energy Probe submits that Enbridge's evidence regarding facility project alternatives is flawed since it did not select the least cost alternative. Enbridge appears to have been motivated by a desire to maximize earnings because selecting the alternative that is not the least cost alternative but results in a greater increase in rate base.

Project Costs

The original application was for approval of construction of a 19 km pipeline of NPS 36 diameter from its existing Dover Transmission Station in the Municipality of Chatham-Kent to a new valve site in the Municipality of Lakeshore to be in service November 1, 2023, and a 12 km of NPS 16 natural gas pipeline in the Municipality of Lakeshore, the Town of Kingsville, and the Municipality of Leamington with in service date of November 1, 2024. Both pipelines would

²⁰ Ibid., Page 19, Paragraph 47

²¹ Exhibit C, Tab 1, Schedule 1, Page 11, Table 3: Pipeline Loop and Lateral Interconnect Economic Assessment

²² Exhibit I. APPrO.11

²³ J2.6

²⁴ Tr. Vol 2, Page 100

have the same maximum operating pressure. Included in the project were ancillary measurement, pressure regulation, and station facilities. The proposed Project was estimated to cost \$314.4 million.

The updated application, filed June 16, 2023, was the same as the original application except that the in-service date for 19 km of NPS 36 pipeline has been postponed by a year to November 1, 2024, and 12 km of NPS 16, called Learnington Interconnect, was no longer included in the project. Even though the scope of the project was reduced the cost estimate increased from \$314 million to \$358 million.

The following table filed in response to an interrogatory²⁵ compares the costs of the updated application (here referred to as Amended Application) with the original application.

		19km of NPS 36 Pipeline and Ancillary Facilities (Amended Application, June 2023)	19km of NPS 36 Pipeline and Ancillary Facilities (Initial Application, June 2022)
<u>ltem</u> <u>No.</u>	<u>Cost Description</u>	Project Costs (\$)	Project Costs (\$)
1	Materials	57,000,000	56,600,000
2	Labour, External Permitting and Land, and Outside Services	199,300,000	124,100,000
3	Contingency	20,800,000	19,200,000
4	Interest During Construction	12,100,000	3,500,000
5	Total Direct Capital Cost	289,200,000	203,400,000
6	Indirect Overheads	68,800,000	43,200,000
7	Total Project Cost	358,000,000	246,600,000

Energy Probe Submission

Enbridge claims that it is only seeking OEB approval of the Leave to Construct and not for project costs.²⁶ Energy Probe submits that this is wrong. The OEB can not approve an LTC application for a project without approving project costs.

In the above table, Item No. 6 shows the increase in Indirect Overheads from \$43.2 million to \$68.8 million, an increase of \$25.6 million from June 2022 to June 2023. Indirect Overheads estimate is an allocation of the costs of supporting departments such as Finance, Human Resources, Information Technology, Law, and Regulatory Affairs and Head Office costs.

²⁵ Exhibit I.SEC 2, Page 2, Table 1

²⁶ Tr. Vol. 2, Page 103

To accept Enbridge's cost estimate, one would have to accept that the costs of the supporting departments, recovered through Indirect Overheads increased by \$25.6 million in one year. For example, if the compensation per employee is \$100 thousand per year, these departments would have needed to hire an additional 256 employees to support the Panhandle project. Energy Probe submits that the \$25.6 million increase in indirect overhead costs allocated to this project is unreasonable and the OEB should reduce indirect overheads from \$68.8 million to \$43.2 million, the amount that it was in the original application. Enbridge witnesses could not provide a credible explanation for the increase. ²⁷

Energy Probe submits that, should the OEB decide to approve the Panhandle project, it should reduce the cost estimate by \$25.6 million of excessive indirect overheads.

Project Economics

According to Enbridge this project is a transmission pipeline project and not a distribution pipeline project and applications for approval of transmission pipeline projects need to follow EBO 134 guidelines.

Enbridge relies on the tree-stage test in EBO 134 to justify approval of the project. The total estimated cost of the project is \$358.0 million. Excluding indirect overheads, the total estimated cost of the Project is \$289.2 million. The summary of Enbridge's Three Stage Test is in the following table.²⁸

Stage	NPV (\$millions)
1	(\$150)
2	\$226 to \$353
3	\$257
Total	\$333 to \$460

At Stage 1, the project has a PI of 0.48²⁹ and a negative NPV of \$150 million³⁰ based on the present value of costs and revenues of customers served by the project over 40 years. This means that the project will be at a PI of 0.48 after 40 years.

²⁷ Tr. Vol 2, Pages 103-104

²⁸ AIC page 26, Paragraph 70

²⁹ Exhibit E, Tab 1, Paragraph 9

³⁰ AIC page 27, Table 2

Stage 2 assesses the net benefits that new general service customers realize by attaching to the natural gas system due to the incremental capacity provided by the transmission system expansion project that is the subject of the assessment.³¹ In its Stage 2 analysis Enbridge estimated the estimated energy cost savings that would accrue directly to its Panhandle Market Area customers as a result of using natural gas instead of another fuel to meet their energy requirements. The Stage 2 analysis estimated the NPV of the energy cost savings to be in the range of approximately \$226 million over a period of 20 years to \$353 million over 40 years. The Stage 2 energy cost savings have only been calculated for the general service customer class.³²

For Stage 3, the Enbridge claims that the Project's construction will provide direct and indirect economic benefits to Ontario estimated at approximately \$257 million.³³ This number is based on the capital expenditures by Enbridge on the project, the cost of labour in building it, and taxes paid.³⁴

Energy Probe Submission

Although Energy Probe believes that EBO 134 guidelines are not appropriate for this project, even if EBO 134 guidelines were appropriate, Enbridge did not use them appropriately.

The NPV of the project and its PI at Stage 1, should have been calculated based on 20 years of costs and revenues instead of 40 years. Considering that over 94 percent of the demand is for large volume contract rate customers, and that there are uncertainties about government plans regarding natural gas use, Energy Probe submits that a 20-year horizon is more appropriate. Using the revenue horizon of 20 years results in a Stage 1 NPV of negative \$174 million and a PI of 0.39.³⁵ Energy Probe submits that contract rate customers should be charged a contribution that would bring this project to a PI of 1.0 and an NPV of 0.0 at 20 years.

Energy Probe believes that Enbridge overstated Stage 2 benefits. Stage 2 assesses the net benefits that new general service customers realize by attaching to the natural gas system due to the incremental capacity provided by the transmission system expansion project that is the subject of the assessment. Evidence indicates that there may not be much incremental capacity left for general service customers because Enbridge gave most of it to NextStar / Stellantis.³⁶ If any incremental capacity is left it is probably overstated because Enbridge underestimated the number of new general service customers that may use a heat pump instead of a gas furnace.³⁷ Considering these two facts, Energy Probe submits that Enbridge's estimate of Stage 2 benefits should be reduced by at least 50%. Enbridge estimated Stage 2 benefits using the 20-year horizon as \$226 million³⁸ so the appropriate Stage 2 benefit number is \$113 million.

³¹ Ibid., Page 29, Paragraph 82

³² Ibid., Page 27, Paragraphs 75 and 76

³³ Ibid., Page 28, Paragraph 77

³⁴ Exhibit E, Tab 1, Schedule 7, Page 1

³⁵ I.EP.15b

³⁶ Tr. Vol. 1, Page 155 and Tr. Vol.2, Page 7

³⁷ Exhibit K1,3, Tr. Vol. 1, Pages 50 to 52

³⁸ Exhibit E, Tab 1, Schedule 1, Page 5, Paragraph 15

In the Stage 3 analysis, Enbridge treats money spent on building the pipeline and all taxes paid as a benefit. At Stage 1, Enbridge treats the costs of the project as a negative, while at Stage 3, Enbridge treats same costs as a positive. In EBO 134 the amounts calculated for Stages 1, 2, and 3 are cumulative. Therefore, Enbridge's interpretation of EBO 134 guidelines can be used to justify any project, no matter what the cost. Energy Probe submits that this could not possibly have been the intention of the OEB when it approved the Three Stage Test in EBO 134 and is fundamentally wrong.

Money spent by Enbridge is the money that is paid to Enbridge in by existing customers. If they did not have to pay subsidies to Enbridge for the Panhandle pipeline, these customers would spend that money on their own needs and investments. For example, if more money is paid to Enbridge by industrial customers in Sarnia, they would have less money for investments in their own businesses. This is a *zero-sum* situation and the appropriate amount for Stage 3 is zero. Energy Probe submits that the Panhandle project fails the EBO 134 Three Stage Test as shown in the table below.

Stage	NPV (\$ millions)
1	(\$174)
2	\$113
3	0
Total	(\$61)

The benefits at Stage 2 and at Stage 3 are not large enough to offset the negative NPV at Stage 1.

Considering the evidence in this case, it is not clear why EGI is so strongly opposed to charging contract customers a contribution that would make this project economically feasible. EGI has put these reasons before the Board.

- a) Incompetence: EGI does not know how to calculate the contribution.³⁹
- b) Unfairness: contributions, even if they could be calculated would be unfair to some customers.⁴⁰
- c) No one wants to pay a contribution; we asked customers, and they said no.⁴¹

³⁹ Tr. Vol.2, Pages 22 - 29

⁴⁰ Ibid., Pages 40-41

⁴¹ Tr. Vol 2, Pages 126-128

d) Contributions are not necessary: because of larger offsetting benefits at Stage 2 that accrue to general service customers.

None of the above reasons seem persuasive, probably because they are not the real reason which may be that contributions would reduce Enbridge rate base and main purpose of this project is to increase its rate base and the resulting equity earnings of Enbridge.

Enbridge's other reason for not charging contributions is that they are too difficult to calculate⁴² and that similarly situated customers would not be treated fairly nor could Enbridge provide predictability for those customers over time.⁴³ However, Pollution Probe demonstrated that a contribution for this projects is actually not that difficult to calculate at all.⁴⁴ In response to an undertaking, Enbridge provided its own calculation of a contribution.⁴⁵

While Enbridge is concerned that contributions may be unfair to some Panhandle customers it is unconcerned that customers in Sarnia would be forced to subsidize customers in Windsor if no contributions are charged to Panhandle customers.

Enbridge did not try to explain to contract rate customers that they may have to pay a contribution to get the pipeline built. Since contract rate customers and Enbridge were opposed to contributions, Enbridge had no difficulty in obtaining their opposition to contributions.

Enbridge also claims that contributions are not appropriate for transmission pipelines. This claim appears to be based on several OEB documents starting with the OEB Natural Gas Facilities Handbook ⁴⁶. Enbridge witnesses confirmed that they were familiar with it⁴⁷. The following is a quote from the handbook ⁴⁸.

The applicant must demonstrate that the project's economics meet the OEB's economic tests using the methodology outlined in <u>EBO 188</u> (including <u>Appendix B</u>) or <u>EBO 134³⁹</u>, as applicable. Where a contribution in aid of construction is required from a customer to make a project feasible, the applicant must demonstrate that the amount of the contribution is reasonable and consistent with EBO 188, EBO 134 and its own customer connection policies. An applicant may propose to use an Hourly Allocation Factor (HAF) to allocate the capital costs of a project amongst existing and future customers of those facilities for the purpose of calculating the contribution in aid of construction. If so, the applicant must demonstrate that the proposed methodology for calculating the HAF is reasonable.⁴⁰ If a community expansion project is not economic based on existing rates, an applicant may request a surcharge (e.g., a system expansion surcharge⁴¹ or temporary connection surcharge⁴²).⁴³

⁴⁴ Tr. Vol 3, Pages 6-9; K2.3, Page 40

⁴² Ibid., Pages 22-29

⁴³ Tr. Vol. 1., Page 10

⁴⁵ J2.1

⁴⁶ K2.2, Tab 1

⁴⁷ Tr. Vol. 2, Page 104

⁴⁸ Handbook, Pages 26 and 27

- ³⁹ Also see the <u>Filing Guidelines on the Economic Tests for Transmission Pipeline Applications</u>, EB-2012-0092
- ⁴⁰ For reference, see Enbridge Gas Inc.'s SES / TCS / HAF application, EB-2020-0094
- ⁴¹ An SES is a charge to new customers of a community expansion project to improve the financial feasibility of the project and avoid cross-subsidization by existing customers.
- ⁴² A TCS is a charge to new customers of a non-community expansion project to improve the financial feasibility of the project and avoid cross-subsidization by existing customers.
- ⁴³ Such as with Enbridge Gas Inc.'s SES / TCS / HAF application, EB-2020-0094. Currently only Enbridge Gas Inc. has blanket approval to charge an SES or a TCS. In its decision (issued on November 5, 2020), the OEB approved Enbridge Gas Inc.'s application for blanket approval to charge an SES for community expansion projects serving 50 or more customers and a TCS for small main extension and customer attachment projects serving less than 50 customers.

The handbook states that contributions may be appropriate both for EBO 134 and EBO 188. The following quotes from the handbook explain the position of the OEB on the applicability and use of EBO 134 and EBO 188 guidelines. Rather than attempting to summarize them or paraphrase them which may result in a loss in meaning, Energy Probe has quoted them in full ⁴⁹.

Economic Tests: EBO 188 and EBO 134

One of the OEB's statutory objectives is to facilitate rational natural gas expansion, and in so doing the OEB ensures that there is no undue cross-subsidization between existing and new customers. Two decisions issued by the OEB, EBO 188 and EBO 134, describe some of the economic thresholds that natural gas expansion plans need to meet to be eligible for cost recovery through OEB approved rates. The EBO 188 economic feasibility test guidelines apply to distribution pipelines, whereas the EBO 134 economic feasibility test guidelines apply to transmission pipelines.

The applicant must file evidence describing in detail how the proposed project meets the economic tests described in EBO 188 or EBO 134, as applicable, to demonstrate that the project does not lead to undue cross-subsidization from existing customers. (Emphasis added)

<u>EBO 188</u>

By way of summary, the EBO 188 decision describes the economic test that should be used to evaluate a proposed expansion of a natural gas distributor's distribution system. The key principle behind the test is that a distributor's total portfolio of expansion projects should not result in undue cross-subsidization from existing customers over the long term. This analysis is performed using a discounted cash flow analysis to calculate the Profitability Index (Pl) of a project: a Pl of less than 1.0 indicates that the revenues forecast from a new project are less than the forecast costs, and a Pl greater than 1.0 indicates that the forecast revenues of a project are greater than the forecast costs. For individual distribution projects requiring LTC, the OEB typically expects that the Pl will be at least 1.0. In cases where a project is below a profitability index (Pl) of 1.0, a distributor may ask the new customers to pay an upfront contribution in aid of construction to increase the Pl to 1.0 for the project or may apply for a SES.

⁴⁹ Handbook, pages 27 and 28

<u>EBO 134</u>

Like EBO 188, the EBO 134 guidelines direct applicants to use a discounted cash flow method to calculate the Pl for the project as a minimum test in assessing the feasibility of transmission projects. The difference between EBO 134 and EBO 188 is the inclusion in EBO 134 of Stage 2 and Stage 3 cost/benefit analyses, and that not all transmission projects will require a Pl of at least 1.0. The second stage is intended to quantify other public interest factors not considered at stage one. All other quantifiable public interest information (costs and benefits) should be provided at this stage. The third stage is intended to consider any other relevant unquantifiable costs and benefits in addition to the results from stage one and stage two.

The test in EBO 134 is generally applicable to a project where there will be no distribution customers directly connected to the pipeline.

The OEB indicates that the applicant needs to demonstrate that the project does not lead to undue cross-subsidization from existing customers both under EBO 134 and EBO 188 guidelines. Energy Probe believes that Enbridge has failed to demonstrate that. Nowhere in the evidence does Enbridge demonstrate that *the project does not lead to undue cross-subsidization from existing customers*. Enbridge witnesses claim that it does so in the indirect way.⁵⁰

The OEB Natural Gas Facilities Handbook directs applicants (in its footnote 39) to OEB Filing Guidelines on the Economic Test for Transmission Pipeline Applications, EB-2012-0092, dated February 21, 2013⁵¹. Enbridge witnesses indicated that they were familiar with that document.

In the EB-2012-0092 consultation, the OEB proposed an addition to the EBO 134 guidelines that would only apply to transmission pipelines.⁵²

"Any project brought before the Board for approval should be supported by an assessment of the potential impacts of the proposed natural gas pipeline(s) on the existing transportation pipeline infrastructure in Ontario, including an assessment of the impacts on Ontario consumers in terms of cost, rates, reliability, and access to supplies."

Despite opposition by the gas distributors the OEB adopted the above wording in its Filing Guidelines on the Economic Tests for Transmission Pipeline Applications where it provided the definition of transmission pipelines that is still in use.⁵³

"For the purpose of these Guidelines transmission pipelines are defined as any planned or proposed pipeline project that would provide **transportation services to move natural gas on behalf of other shippers within Ontario.**"

⁵⁰ Tr. Vol. 2, Pages 106 to 105

⁵¹ K2.2, Tab 2

⁵² EB-2021-0092, Notice of Review of Proposed Filing Guidelines on the Economic Tests for Transmission Pipeline Applications, OEB letter, December 13, 2012, Page 2

⁵³ EB-2021-0092 Filing Guidelines, Page 1

The applicant for approval of a transmission pipeline project must demonstrate that the pipeline will provide transportation services to move natural gas on behalf of other shippers. It is clear that "other shippers" in this case are shippers other than Enbridge, for example other distributors or gas marketers who would serve their own distribution customers. That is not the case here. The Panhandle Regional Expansion pipeline is needed by Enbridge so that it can provide distribution service to its customers as is discussed later in the Energy Probe submission.

Paragraphs 13 and 14 of the Filing Guidelines are particularly relevant in this case.⁵⁴

- 13. The Board continues to hold the opinion that it is appropriate for existing customers to subsidize, through higher rates, financially non-sustaining extensions that are in the overall public interest if the subsidy does not cause an undue burden on any individual, group or class.
- 14. Any project brought before the Board for approval should be supported by an assessment of the potential impacts of the proposed natural gas pipelines on the existing transportation pipeline infrastructure in Ontario, **including an assessment of** the impacts on Ontario consumers in terms of cost, rates, reliability, and access to supplies.

The Panhandle Regional Expansion pipeline project is **financially non-sustaining** and may be subsidized by the existing customers if it is in the public interest and **the subsidy does not cause an undue burden on customers**. Energy Probe believes that Enbridge has failed to prove that it does not.

The concept of no undue burden on existing customers was introduced by the OEB in 1987 in the EBO 134 guidelines.⁵⁵

6.79

The Board continues to hold the opinion that it is appropriate for existing customers to subsidize, through higher rates, financially non-sustaining extensions that are in the overall public interest **if the subsidy does not cause an undue burden on any individual, group or class.**

According to the OEB subsidies by existing customers are appropriate if they **do not cause an undue burden**. The OEB did not specify how the impact of the burden would be determined or assessed and left it up to future panels to decide. Further on in EBO 134 the OEB makes it clear that contributions are required if there is an undue burden.⁵⁶

⁵⁴ Ibid., Page 3

⁵⁵ K2.2 Tab 7, EBO 134, Section 6.79, Paragraph 390

⁵⁶ Ibid., Section 7.29, Paragraph 436

7.29

The Board finds that a contribution-in-aid of construction should be required for those projects where the sole purpose is to supply gas into a new area and where the evaluation process demonstrates an undue burden on existing customers.

Even though the OEB identified the potential of undue burden on existing customers in EBO 134, Enbridge did not deal with it in its evidence. It claims that the burden on existing customers can only be determined in a future rate setting proceeding.⁵⁷

The OEB in its EBO 134 guidelines does not prohibit contributions and in Section 7.29 indicates that this should be a requirement for projects whose *"sole purpose is to supply gas into a new area"*. It does not define what is *"a new area."* Is a *"new area,"* an area where a distributor, such as Enbridge, does not hold a Franchise and a Certificate of Public Convenience and Necessity, or is a new area, a part of the area of the municipality where Enbridge already has these rights but does not already serve customers. The very name of the project, the Panhandle Regional Expansion Project, indicates that it is an expansion project into a new area which Enbridge calls the Panhandle Market Area. According to Enbridge the proposed Panhandle project will provide gas service to prospective residential customers who do not currently have access to gas⁵⁸, and it will provide additional volumes of gas to existing customers such as Atura. To the extent that customers do not have gas service in some parts of the area served by the proposed Panhandle pipeline, Energy Probe submits that in those situations Panhandle is providing service into a new area.

Even if the *sole purpose* of the project is not to supply gas into a new area, which does not mean that EBO 134 guidelines prevent Enbridge from charging contributions.

Based on the OEB definition of a transmission pipeline⁵⁹ as any planned or proposed pipeline project that would provide transportation services to move natural gas on behalf of other shippers within Ontario, the Panhandle project is not a transmission pipeline, because its main and arguably only purpose is to provide gas to the Panhandle Market Area and not to provide transportation services to move natural gas on behalf of other shippers within Ontario. Energy Probe believes that based on the evidence in the case, the Panhandle is a distribution pipeline.

However, if one does not agree that it is a distribution pipeline, then it is a pipeline with a dual role because it serves a distribution and transmission purpose. The OEB was faced with a similar problem in an earlier case, EB-2018-0013 referred to as the Kingsville application. Energy Probe believes that the following quotes from the decision are relevant.⁶⁰

⁵⁷ I.EP.18; Vol 2, Pages 102-103

⁵⁸ Tr. Vol. 2, Pages 121-122

⁵⁹ EB-2021-0092 Filing Guidelines, page 1

⁶⁰ K2.2, Tab 4, Decision and Order, EB-2018-0013, Union Gas Limited, Application for leave to construct a natural gas transmission pipeline and associated facilities in the Town of Lakeshore and the Town of Kingsville in the County of Essex

IGUA submitted that if the OEB concludes that the Project serves both transmission and distribution functions, a more nuanced approach to economic evaluation and associated cost responsibility requirements might be warranted. IGUA provided an example whereby 10% of the cost was recovered through contributions-in-aid of construction from the 34 customer contracts dependent on capacity enabled by the Project. IGUA submitted that contributions-in-aid of construction would reduce the shortfall in the stage 1 analysis and improve the PI for the Project.

The OEB finds that Union appropriately followed the OEB's E.B.O. 134 test for transmission projects. 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.

While the OEB has approved the Project, there are some concerns that the OEB would like to observe.

First, the new pipeline has ancillary distribution benefits according to Union in addition to the transmission functions. The distribution benefits are evident as Union identified 14 firm customer contracts executed and 20 customer contracts being negotiated which rely on the approval and construction of the Project. The OEB finds that the Project meets both distribution and transmission needs, yet the OEB's economic tests are exclusive, applicable to either distribution or transmission lines.

Second, the economic test for transmission, E.B.O. 134, does not attribute who should pay with each stage of testing. For distribution pipelines, the more recent E.B.O. 188 test recognizes that if there is insufficient new revenue generated by the project to cover its costs, capital contributions are required from the benefiting parties. Under E.B.O. 134, the stage 2 benefiting parties would be downstream connecting customers and the local economy. Currently there is no mechanism to have these parties make a contribution to the costs despite their substantial benefit.

For natural gas in Ontario, no economic test or ratemaking mechanism exists today to allow these discrepancies to be addressed.

The OEB acknowledges the creative thinking included in IGUA's submission. While it is not appropriate to split the costing between transmission and distribution pipelines as proposed by IGUA in this proceeding, such proposals may help inform future thinking on the treatment of dual function pipelines.

Energy Probe submits that the Panhandle pipeline performs a distribution function and that the decision on the application should be informed by the Kingsville decision. Like the Kingsville project, the Panhandle project also addresses transmission and distribution needs. Like the Kingsville project which relied on *the distribution benefits of 14 firm customer contracts executed and 20 customer contracts being negotiated which rely on the approval and construction of the Project*, the Panhandle project before the Board relies on distribution benefits of contracts with 27 large volume customers.

The Kingsville decision summarizes IGUA's proposed more nuanced approach to a project that performs a distribution and transmission function by charging some of the customers a contribution charge. Energy Probe submits that a similar, more nuanced, approach would be appropriate in this case.

In an earlier Union Gas case, the EB-2016-0186 Decision, which Enbridge now refers to as the 2016 Panhandle application⁶¹, Union Gas proposed a 20-year depreciation period as is summarised in the following quotes from the Decision.⁶² Although the OEB found that Union's proposals had merit it did not approve Union's proposal for a 20-year amortization.

Union's cost estimate included depreciation expense based on a 20-year depreciation period, which is shorter than the 50 years in the OEB's approved depreciation rates for these assets. The depreciation expense to be recovered from customers would be lower by \$3.5 M in 2017 and \$7.4 M in 2018 if depreciated over 50 years.⁵

Union submitted that a shorter amortization period was warranted given the uncertainties with Ontario's Cap and Trade program and the introduction of the government's Climate Change Action Plan (CCAP). Union submitted that these new initiatives add significant risk to the return of any capital invested in natural gas infrastructure over the medium to long term. Union submitted that a 20-year period better aligns the recovery of the asset costs with the timing of government restrictions and potential elimination of natural gas heating of homes and businesses.

The OEB will not approve Union's proposals for a 20-year depreciation period and a revised cost allocation methodology. The OEB finds that both proposals should be deferred to Union's next cost of service or custom IR application. It would be inconsistent to change the depreciation term and cost recovery for one project, while Union's other assets are depreciated and recovered on different bases. A comprehensive review is required for parties to test, and the OEB to assess, the merits and implications of these two proposals and this should be at Union's next cost of service or custom IR application.

While these proposals may have merit, they cannot be adequately considered during the IRM term, for one project in isolation. A leave-to-construct application requesting a capital pass-through mechanism for cost recovery over 14 months is not the appropriate forum to consider deviations from principles embedded in current OEB-approved rates.

A proper review of these issues will need to include the full range of possible amortization periods, and the impacts on all customer classes of a change to the cost allocation methodology.

Union proposed a 20-year depreciation period and NPV based on 20 years of revenues because of uncertainties with Ontario's Cap and Trade Program. Energy Probe believes that there is less

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 ³² K2.2, Tab 5, Decision and Order, EB-2016-0186, Union Gas Limited, Application for approval to construct a natural gas pipeline in the Township of Dawn Euphemia, the Township of St. Clair and the Municipality of Chatham-Kent and approval to recover the costs of the pipeline., February 23, 2017, pages 5 and 6.
⁶² Ibid., pages 8 and 9

certainty now about the future of natural gas business than was the case in 2016 and that an amortization period shorter than 40 years would be appropriate now. Indeed, shorter periods are currently under consideration in the EB-2022-0200 proceeding as confirmed by Enbridge⁶³.

EBO 134 does not specify a period for the NPV analysis but leaves it up to the applicant. EBO 188 specifies a 40-year period for general service customers and a 20-year period for large volume customers because they are of greater risk. Enbridge has chosen a 40-year period for its economic analysis despite of the fact that large volume, contract rate, customers form more than 94 percent of the demand that is driving this project.

Energy Probe submits that should the OEB approve the Panhandle project it should be based on a 20-year NPV analysis and possibly a 20-year depreciation period.

It should be noted that EBO 134 was issued in 1987 to deal with natural gas system expansion that was needed to displace oil used for home heating. It does not specifically deal with transmission or distribution. It does not set any specific constraints or limits but leaves it up to OEB panel members to set them. In EBO-188, issued in 1998, the OEB set certain constraints and limits that OEB panel members can use to deny approval of distribution expansion projects that would place an undue burden on existing customers. In EB-2012-0092 issued in 2013, the OEB stated that transmission projects would be assessed under EBO 134. The lack of specific constraints or limits in EBO 134 has allowed applicants to obtain approval of a series of uneconomic projects resulting in a large cumulative burden on existing ratepayers. For example, if one adds NPV's of Kingsville (\$59 million⁶⁴), the 2016 Panhandle (\$201 million⁶⁵), and Dawn to Corunna (\$200 million. If one includes ICM projects the total cross-subsidy is much higher. Energy Probe believes that the cumulative subsidy from existing ratepayers for Enbridge's uneconomic projects has become undue.

Energy Probe submits that contract rate customers should be charged a contribution using the OEB approved HAF methodology. That contribution should be based on the amount that would achieve a PI of 1.0 or an NPV of 0.0 based on DCF analysis of 20 years of revenues.

Conclusion

In this application, Enbridge Gas is seeking approval for the Panhandle Regional expansion Project pipeline that is profoundly uneconomic. The revenues paid in rates by the customers served by the pipeline are insufficient to cover its owning and operating costs. The pipeline will require subsidies for more than 40 years and it will not produce adequate revenues to cover its costs on a present value basis for many years after that, probably for 60 years. According to OEB approved depreciation rates, a new steel pipeline would be fully depreciated after 40 years. The

⁶³ Tr. Vol. 2, page 119

⁶⁴ EB-2018-0013 Decision, Page 4

⁶⁵ EB-2016-0186 Decision, Page 8

⁶⁶ EB-2022-0086, Exhibit C, Tab 1, Schedule 1, Attachment 1, Page 3, NPV of Alternatives-40 Year Term

Commissioners should consider if it makes sense to subsidize a pipeline for more years than it takes to depreciate it.

The scope and the cost estimate of the project changed from what was originally filed. In particular, the cost estimate of indirect overheads increased from the original filing by an unreasonably large amount. Should the OEB approve the project Energy Probe believes that the OEB should reduce the cost estimate to a reasonable amount.

In support of its request for approval of the Panhandle Regional Expansion Project Enbridge filed its economic analysis of the feasibility of the project. The economic analysis is based on the Three Stage Test from the EBO 134 guidelines and with a DCF analysis based on 40 years of revenues. According to the economic DCF analysis filed by Enbridge the Panhandle Regional Expansion Project has a large negative NPV at Stage 1 and will require a subsidy from Enbridge ratepayers for more than 40 years.

Energy Probe submits that Enbridge did not appropriately apply the Three Stage Test. EBO 134 does not specify the number of years to be used for DCF analysis. Energy Probe believes that a DCF analysis based on 20 years of revenues would be appropriate as is specified in the EBO 188 guidelines for large volume customers.

Moreover, considering that over 94 percent of the demand is for large volume contract rate customers, and that there are uncertainties about government plans regarding natural gas use and the long-term viability of greenhouse businesses, power generators, and battery manufacturers that depend on gas, Energy Probe submits that a 20-year horizon is more appropriate than a 40-year horizon.

Using the revenue horizon of 20 years results in a Stage 1 NPV of negative \$174 million and a PI of 0.39.⁶⁷ Should the OEB approve this project Energy Probe submits that contract rate customers should be charged a contribution that would bring this project to a PI of 1.0 and an NPV of 0.0 at 20 years.

Energy Probe believes in the user pay principle. The customers that will be served by this pipeline should pay for it. Since proposed rates are inadequate, the customers served by the pipeline should pay a contribution in aid of construction to cover its cost. If the customers served by the Panhandle pipeline are unwilling to pay for it, then there is no need for the pipeline or OEB approval.

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⁶⁷ I.EP.15b