EB-2016-0004

Ontario Energy Board

IN THE MATTER OF GENERIC PROCEEDING ON NATURAL GAS EXPANSION IN COMMUNITIES THAT ARE NOT SERVED

VULNERABLE ENERGY CONSUMERS COALITION
("VECC")
CROSS-EXAMINATION COMPENDIUM

May 5, 2016

TAB 1

7. A framework that requires the customers of one utility to subsidize expansion undertaken by another distributor would be contrary to the cost of service approach that, as set out in the Low Income decision, continues to be the root principle of the determination of rates by the Board. The cost of service of a particular utility does not and cannot include costs of subsidizing activities of another utility. Furthermore, in order to give effect to a framework for the customers of one utility to subsidize expansion by another utility, it would be necessary for the Board to allocate the subsidization amounts to particular utilities and for the benefit of particular communities that are not currently served by a distributor. In the Company's view the Board has no jurisdiction under the governing legislation to make decisions about how funds recovered in rates from customers of a utility are to be allocated to other utilities and for the benefit of particular communities not currently served by a distributor.

Issue #3: *Based on a premise that the OEB has the legal authority described in Issue #1, what are the merits of this approach? How should these contributions be treated for ratemaking purposes?*

8. Enbridge is of the view that there are no merits to this approach. The notion of a mechanism whereby the customers of one utility subsidize the expansion of another is flawed in a number of respects.

9. The Discounted Cash Flow ("DCF") analysis that is currently employed to test the economic feasibility of projects today is time limited. Under EBO 188 the profitability index ("PI" or "feasibility") test that is used is limited to either a twenty or forty year time horizon, based on customer type. The nature of community expansion projects typically requires a large cash outlay in the initial year(s) which is recovered over a twenty or forty year period of time.

10. In the early years community expansion projects tend to be detractors to profitability, however at some future point the cash flows cross over such that these projects begin to contribute to profitability. Except for the most profitable customer additions, existing customers typically support the revenue requirement of new customers for a period of time through rates. Overtime, as the revenue requirement associated with these new customers' declines, they contribute to lowering rates for customers who preceded them and cross subsidize newer customers. Under this model Enbridge has been successful in doubling the

number of customers in its franchise since the early 90's which contributed to minimizing of rate increases during this period.

11. This view of a profitability curve, taken in the context of Enbridge's proposal is illustrated below in Table 9. Table 9 shows the estimated rate impact of Enbridge's community expansion proposal based on thirty-nine community expansion projects the Company now has under consideration. The impact on existing customers peaks in year nine of the analysis and then begins to decline. This decline is indicative of when the incremental revenue contribution of customers in this portfolio begins to exceed the incremental revenue requirement they impose on other customers. Extending this example to any cross utility subsidy proposal would mean that at some point in the future customers of the utility that received the subsidy would need to return these amounts to customers of the utilities that originally paid them in order to be fair to customers that had helped fund the extension of service to them nine years earlier.

12. Additionally, the use of cross company subsidies would not be in the best interest of all ratepayers in the province as it would erode the economies of scale developed over a long period of time by both Enbridge and Union Gas. Such economies of scale are associated with the operating and carrying costs on the assets which the ratepayers for each of the distributors have been contributing towards for many years. Any cross company subsidy now, would see each of those utilities ratepayers lose such benefits and would see them not only paying for the related operating and carrying costs on assets for their distributor but for other distributors as well.

13. Cross company rate subsidization is not only unfair to existing ratepayers but would require extensive efforts in attempting to accumulate all of the volumes and cost data across all utilities in order to ensure cost causality and cost allocation principles would be applied equitably across all utilities, in essence creating one rate structure for the province which in Enbridge's view is not achievable or appropriate.

14. It is somewhat ironic that a proposal has been made that would result in more regulated natural gas utilities at the same time the province is promoting the consolidation of energy distributors in the electricity sector, as indicated by the following statement:

> *To promote consolidation of the electricity distribution sector, the government has announced in the **2015 Ontario Budget** that received Royal Assent on June 4, 2015, a time-limited relief on taxes pertaining to transfers of electricity assets for all Municipal Electricity Utilities, including transfers to the private sector.* (Ontario Ministry of Finance website: http://www.fin.gov.on.ca/en/tax/ea/index.html)

15. More regulated utilities would increase the level of effort and cost required to regulate them. In short the regulatory burden would increase. In addition to rate regulation any party seeking to legally transport or distribute natural gas in Ontario will also need to qualify for required licensing and presumably there would be costs associated with policing the terms of these licenses. Beyond these concerns, if a cross company subsidy program were to be implemented the Board would have numerous questions to answer with respect to its operation, some of these questions are:

    - Who would administer such a program?
    - What party would collect and hold such funds?
    - On what basis would application for funding be considered?
    - How would projects to be funded be evaluated? On what criteria?
    - How would applications be vetted in terms of consistency in cost and revenue forecasts?
    - What would the administration of such a program cost?

16. Clearly, the introduction of such a program would be costly to administer and these costs would ultimately be borne by all natural gas ratepayers. Further, significant time and effort would be required to compare competing proposals on an equitable manner. And lastly, if the program is to be fair to all natural gas customers the administrator would need to monitor projects that benefited from the cross-company subsidies over their lives in order to return past contributions to the contributors once these projects reach a point where they begin to generate positive returns.

How should these contributions be treated for ratemaking purposes?

17. Enbridge has already stated that it does not believe that cross company subsidies are appropriate. If a program were implemented that would in effect collect contributions from all natural gas customers province-wide and use these funds to subsidize natural gas community expansion projects across a number of different

gas distributors, Enbridge acknowledges that these funds could be treated as contributions in aid of construction.

Issue #4: *Should the OEB consider exemptions or changes to the EBO 188 guidelines for rural and remote community expansion projects?*

18. Yes. With respect to the specific questions raised by this issue:

Issue #4(a) - Should the OEB consider projects that have a portfolio profitability index (PI) less than 1.0 and individual projects within a portfolio that have a PI lower than 0.8?

19. Enbridge is of the view that if the extension of the natural gas distribution system to currently unserved communities is to occur that the OEB will need to exempt many of these projects from this requirement.

Issue #4 (b) - What costs should be included in the economic assessment for providing natural gas service to communities and how are they to be determined and calculated?

20. It is the position of Enbridge that there are no changes required to EBO 188 with respect to the costs that should be included in the economic assessment of providing natural gas service to communities and that there are no changes required in terms of how such costs are treated or the economic feasibility of projects calculated.

Issue #4(c) - What, if any, amendments to the EBO 188 and EBO 134 Guidelines would be required as a result of the inclusion of any costs identified above?

21. Enbridge believes that further revisions or exemptions from the current EBO 188 Guidelines will be required in order to extend gas service to currently unserved communities in Ontario. With respect to the EBO 134 Guidelines the Company does not believe that any changes are required. The Company's proposal in this regard is outlined later in this evidence.

Issue #4(d) - What would be the criteria for the projects/communities that would be eligible for such exemptions? What, if any, other public interest factors should be included as part of this criteria? How are they to be determined?

TAB 2

Table 5: Preliminary Profitability Analysis with Proposed TES and ITE Enhancement

			Potential Customers			Forecast Customers								
	Community	Communities	Conversions	New	Total	Conversions	New	Total	Distance from Source (kms)	Total Investment	PI Normal	PI Proposed	CIAC req'd for PI=0.8	Proposed Solution
Col 1	Col 2	Col 3	Col 4	Col 5	Col 6	Col 7	Col 8	Col 9	Col 10	Col 11	Col 12	Col 13	Col 14	Col 15
1	Fenelon Falls & Bobcaygeon	2	3,029	3,213	6,242	2,272	3,213	5,485	47	$111,956,990	0.26	0.70	$10,980,000	Pipeline
2	Scugog Island	1	1,177	291	1,468	883	291	1,174	8	$19,714,126	0.24	0.58	$6,189,863	Pipeline
3	Cambray	1	400		400	300	0	300	10	$7,583,140	0.19	0.45	$3,565,567	Pipeline
4	Zephyr	1	250		250	188	0	188	11	$5,184,375	0.16	0.39	$3,124,677	Pipeline
5	Cotnam Island	1	100		100	75	0	75	10	$2,171,890	0.13	0.36	$1,285,518	Pipeline
6	Sarsfield	1	200		200	150	0	150	10	$4,147,500	0.15	0.38	$2,535,094	Pipeline
7	Udora	1	400		400	300	0	300	8	$8,842,300	0.16	0.37	$5,460,127	Pipeline
8	Wilkinson Sub, Innisfil	1	90		90	68	0	68	2	$1,897,055	0.12	0.35	$1,253,680	Pipeline
9	Town of Marsville	1	350		350	263	0	263	8	$8,047,225	0.16	0.36	$5,102,644	Pipeline
10	Town of Mansfield	1	294		294	221	0	221	8	$6,817,129	0.15	0.36	$4,366,730	Pipeline
11	Glendale Subdivision	1	100		100	75	0	75	6	$2,509,250	0.12	0.31	$1,781,728	Pipeline
12	Caledon - Humber Station	1	72		72	54	0	54	3	$2,067,960	0.10	0.26	$1,594,818	Pipeline
13	Enniskillen	1	200		200	150	0	150	10	$5,109,500	0.14	0.33	$3,497,095	Pipeline
14	Village of Lisle	1	400		400	300	0	300	5	$9,966,800	0.15	0.34	$6,584,626	Pipeline
15	5th Line, Mono Twp.	1	32		32	24	0	24	3	$1,798,760	0.05	0.15	$1,674,004	Pipeline
16	Sandford	1	200		200	150	0	150	9	$5,590,500	0.13	0.31	$3,978,095	Pipeline
17	Leasksdale	1	200		200	150	0	150	8	$5,590,500	0.13	0.31	$3,978,095	Pipeline
18	Curran	1	100		100	75	0	75	7	$3,640,250	0.11	0.25	$2,912,728	Pipeline
19	Bainsville	1	100		100	75	0	75	7	$3,997,750	0.10	0.23	$3,270,228	Pipeline
20	Westmeath	1	200		200	150	0	150	10	$6,448,500	0.13	0.28	$4,836,094	Pipeline
21	Haydon	1	100		100	75	0	75	10	$3,441,281	0.11	0.26	$2,679,802	LNG
22	Woodville	1	300		300	225	0	225	9	$5,797,180	0.17	0.41	$3,602,262	LNG
23	South Glengary	1	200		200	150	0	150	10	$4,590,881	0.15	0.35	$3,114,668	LNG
24	Caledon - Torbram Road	1	79		79	59	0	59	11	$3,117,191	0.10	0.23	$2,512,246	LNG
25	Chute-a-Blondeau	1	200		200	150	0	150	10	$5,335,501	0.14	0.33	$3,511,703	LNG
26	Hockley Village, Mono Twp.	1	64		64	48	0	48	13	$2,950,428	0.09	0.20	$2,451,366	LNG
27	Maxville	1	400		400	300	0	300	10	$7,147,877	0.18	0.44	$4,224,146	LNG
28	Lanark & Balderson	1	400		400	300	0	300	12	$8,637,117	0.17	0.40	$5,018,218	LNG
29	Douglas	1	200		200	150	0	150	20	$5,335,501	0.14	0.33	$3,511,703	LNG
30	Eganville	1	700		700	525	0	525	40	$14,063,487	0.19	0.43	$7,718,759	LNG
31	Kinburn/Fitzroy Harbour	1	500		500	375	0	375	15	$10,588,874	0.18	0.41	$6,051,359	LNG
32	St. Isidore	1	400		400	300	0	300	10	$7,147,877	0.18	0.44	$4,224,146	LNG
33	Kirkfield	1	800		800	600	0	600	25	$15,604,747	0.19	0.44	$8,370,140	LNG
34	Minden	1	1,414		1,414	1,061	0	1,061	68	$26,418,325	0.20	0.46	$13,624,673	LNG
35	Coboconk	1	400		400	300	0	300	40	$8,637,117	0.17	0.40	$5,018,218	LNG
36	Norland	1	200		200	150	0	150	50	$5,335,501	0.14	0.33	$3,511,703	LNG
37	Barry's Bay	1	500		500	375	0	375	90	$10,761,872	0.17	0.41	$6,212,245	LNG
38	Kinmount	1	200		200	150	0	150	60	$5,335,501	0.14	0.33	$3,511,703	LNG
39	Haliburtion (Dysert)	1	2,035		2,035	1,526	0	1,526	88	$37,161,620	0.20	0.47	$18,762,625	LNG

82. Table 5 expands upon the information provided in Table 4 by adding the "Proposed PI" and the calculated Contribution in Aid of Construction ("CIAC") required in order to bring the PIs of these potential projects up to 0.8. The Proposed PIs include the impact of the additional financial support provided by the implementation of the SES and the ITE. Based on the Company's current cost estimates fourteen projects achieve PIs greater than or equal to 0.4. However, only three potential projects achieve a PI of 0.4 or greater under the Company's proposal when the cost of transmission mains is included in the analysis for all projects. It can also be seen that in some cases significant additional financial support would be required in order to achieve PIs of 0.8 as set-out in EBO 188.

83. As noted earlier, the Company has also identified a subset of communities that could potentially be more economically served through the utilization of LNG as an alternate means of transporting natural gas to these locations. This analysis indicates that in cases where the capital cost of transmission main to connect these communities to the Company's existing natural gas distribution system

ENBRIDGE GAS DISTRIBUTION INC. (ENBRIDGE)
RESPONSES TO INTERROGATORIES OF SEC

INTERROGATORY #22

[p.27, Table 5] Please provide a table showing for each listed community expansion project:

a. total SES forecasted to be collected
b. total ITE amount to be collected
c. the amount forecasted to be collected from existing customers to make up the shortfall in the PI

RESPONSE

Due to the manner in which the models used to calculate these tables are constructed Enbridge is unable to provide the information requested for each individual project at this time. In order to be responsive Enbridge is providing the requested information in aggregate for all 39 projects.

a. Total SES to be collected over 40 years - $414.84 million
b. Total ITE amount to be collected over 10 years - $12.99 million
c. The amount forecast to be collected from existing customers over 40 years- $439.22 million

basis for ten years (Column 8) only two of the thirty-nine potential community expansion projects would achieve PIs in excess of 0.4, the revised project PI proposed by Union Gas.

57. The estimated capital costs used to determine the PIs shown in Table 3 are based on transmission main that would need to be built to extend service to these communities. The main factor leading to the low PIs for these potential projects are high capital costs that are driven by long distances from the existing gas distribution system, difficult terrain and contingency amounts that have been factored into these estimates. Enbridge expects that once more detailed assessments of the design and construction requirements of these projects and scheduling are completed and once the work is tendered contingency amounts can be reduced resulting in lower overall capital cost estimates.

Proposal Objectives

58. The parameters of Enbridge's proposal in this proceeding have been set to achieve the following objectives:

- To maximize the number of new communities to receive natural gas service without the use of provincial funding support, and
- To limit the rate impacts on existing customers to a maximum approximating $2 per month ($24 per year) over the multi-year expansion program.

59. Under this proposal Enbridge expects that it could complete approximately thirty-nine community expansion projects that would provide natural gas service to approximately 16,000 homes and businesses in the first ten years at a total capital cost of approximately $410 million. In assessing the second objective guidance can be found in the level of ratepayer subsidy that the Board has determined to be appropriate for the funding of the Demand Side Management programs of both Enbridge and Union Gas (EB-2015-0029/EB-2015-0049 Decision and Order, page 6).

Elements of the Enbridge Proposal

a) Adopt Union's proposed definitions of a Community Expansion Project and a Small Main Extension Project;

Table 4: Preliminary Profitability Analysis

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1	Fenelon Falls & Bobcaygeon	3,029	3,213	6,242	2,272	3,213	5,485	47	111,956,990	0.26	Pipeline
2	Scugog Island	1,177	291	1,468	883	291	1,174	8	19,714,126	0.24	Pipeline
3	Cambray	400		400	300	0	300	10	7,583,140	0.19	Pipeline
4	Zephyr	250		250	188	0	188	11	5,184,375	0.16	Pipeline
5	Cotnam Island	100		100	75	0	75	10	2,171,890	0.13	Pipeline
6	Sarsfield	200		200	150	0	150	10	4,147,500	0.15	Pipeline
7	Udora	400		400	300	0	300	8	8,842,300	0.16	Pipeline
8	Wilkinson Sub, Innisfil	90		90	68	0	68	2	1,897,055	0.12	Pipeline
9	Town of Marsville	350		350	263	0	263	8	8,047,225	0.16	Pipeline
10	Town of Mansfield	294		294	221	0	221	8	6,817,129	0.15	Pipeline
11	Glendale Subdivision	100		100	75	0	75	6	2,509,250	0.12	Pipeline
12	Caledon - Humber Station	72		72	54	0	54	3	2,067,960	0.10	Pipeline
13	Enniskillen	200		200	150	0	150	10	5,109,500	0.14	Pipeline
14	Village of Lisle	400		400	300	0	300	5	9,966,800	0.15	Pipeline
15	5th Line, Mono Twp.	32		32	24	0	24	3	1,798,760	0.05	Pipeline
16	Sandford	200		200	150	0	150	9	5,590,500	0.13	Pipeline
17	Leasksdale	200		200	150	0	150	8	5,590,500	0.13	Pipeline
18	Curran	100		100	75	0	75	7	3,640,250	0.11	Pipeline
19	Bainsville	100		100	75	0	75	7	3,997,750	0.10	Pipeline
20	Westmeath	200		200	150	0	150	10	6,448,500	0.13	Pipeline
21	Haydon	100		100	75	0	75	10	3,441,281	0.11	LNG
22	Woodville	300		300	225	0	225	9	5,797,180	0.17	LNG
23	South Glengary	200		200	150	0	150	10	4,590,881	0.15	LNG
24	Caledon - Torbram Road	79		79	59	0	59	11	3,117,191	0.10	LNG
25	Chute-a-Blondeau	200		200	150	0	150	10	5,335,501	0.14	LNG
26	Hockley Village, Mono Twp.	64		64	48	0	48	13	2,950,428	0.09	LNG
27	Maxville	400		400	300	0	300	10	7,147,877	0.18	LNG
28	Lanark & Balderson	400		400	300	0	300	12	8,637,117	0.17	LNG
29	Douglas	200		200	150	0	150	20	5,335,501	0.14	LNG
30	Eganville	700		700	525	0	525	40	14,063,487	0.19	LNG
31	Kinburn/Fitzroy Harbour	500		500	375	0	375	15	10,588,874	0.18	LNG
32	St. Isidore	400		400	300	0	300	10	7,147,877	0.18	LNG
33	Kirkfield	800		800	600	0	600	25	15,604,747	0.19	LNG
34	Minden	1,414		1,414	1,061	0	1,061	68	26,418,325	0.20	LNG
35	Coboconk	400		400	300	0	300	40	8,637,117	0.17	LNG
36	Norland	200		200	150	0	150	50	5,335,501	0.14	LNG
37	Barry's Bay	500		500	375	0	375	90	10,761,872	0.17	LNG
38	Kinmount	200		200	150	0	150	60	5,335,501	0.14	LNG
39	Haliburtion (Dysert)	2,035		2,035	1,526	0	1,526	88	37,161,620	0.20	LNG

80. This analysis shows that the normal PIs for these thirty-nine potential community expansion projects range from a low of 0.05 to a high of 0.26, with none of these potential projects having an indicated PI of 0.8 or greater. The estimated capital costs used to determine these PIs shown in Table 4 are based on transmission main for communities assumed to be served through a pipeline option and LNG facilities for those communities where the this option has been identified as a more economical.

81. The main factor leading to the low PIs for these potential projects are high capital costs that are driven by long distances from the existing gas distribution system, difficult terrain and large contingency amounts that have been factored into these estimates. Again, Enbridge expects that once more detailed assessments of the design and construction requirements of these projects are completed and ultimately after this work is tendered the capital cost estimates will be lower.

TAB 3

ENBRIDGE GAS DISTRIBUTION INC. (ENBRIDGE)
RESPONSES TO INTERROGATORIES OF SEC

INTERROGATORY #20

[p.22-23] Please explain why Enbridge proposes System Expansion Surcharge and Incremental Tax Equivalent will go into general revenue and not treated similar to aid to construction.

RESPONSE

Enbridge Gas Distribution's proposed treatment of System Expansion Surcharge ("SES") as revenue instead of Contribution in Aid of Construction ("CIAC") is better from a rate impact perspective. Treatment of SES as revenue results in an overall increase in revenue requirement ("RR") compared to the scenario if it is treated as CIAC. However, this increase in RR is significantly off-set by the amount of SES and results in a reduction of net RR that impacts rates. As such, treatment of SES as revenue would lower the rate impact on existing ratepayers and is a better proposition.

The ITE is a refund of municipal tax and is effectively a reduction to operating expenses and should not impact rate base. This treatment is consistent with how taxes are treated in feasibility assessment based on EBO 188 guidelines.

TAB 4

ENBRIDGE GAS DISTRIBUTION INC. (ENBRIDGE)
RESPONSES TO INTERROGATORIES OF BOMA

INTERROGATORY #25

General

Ref: Page 20, Paragraph 57

(a) What are the "contingencies" built into the cost estimates for each of the thirty-nine projects in both dollar and percentage terms? By how much is the contingency amount for each of the projects expected to be reduced, once (i) detailed design; and (ii) tendering for each of the projects has been completed? What impact would that have on the weighted average "natural P/I" for the thirty-nine projects?

(b) Will the contracts for the work be on a fixed price basis? If not, on what basis?

(c) What is the forecast average cost per home of connecting the 16,000 homes compared with the average cost of connecting Union's 18,000 homes (twenty-nine communities), as provided in their evidence?

RESPONSE

(a) The Company has not completed detailed costing for the thirty-nine potential community expansion projects referenced in its evidence in this proceeding. The estimated capital costs for these projects presented in the Company's evidence are based on standard costs and the Company's knowledge of the areas under consideration. Given the nature of these estimates contingency amounts have been included in the estimated capital cost of each potential project. These amounts are detailed in the Company's response to IGUA Interrogatory #5 at Exhibit S3.EGDI.IGUA.5. The Company currently does not have the information required to enable it to comment on how much the contingency amount for each of the projects could be reduced as detailed designs and tendering of these projects has not been undertaken. The PI for each potential project and the overall PI for the portfolio of thirty-nine projects will vary based on the actual costs incurred to complete the projects once these costs are known.

(b) At this time the basis for the contracted prices for the work to extend gas service to the thirty-nine communities is not known.

(c) The forecast average cost per home of connecting the 16,000 homes associated with Enbridge's proposal is $25,625. Based on Union Gas's EB-2015-0179 application which references the connection of 20,000 homes and businesses at a total capital cost of $150 million the average capital cost per customer underpinning Union Gas's EB-2015-0179 proposal would be $7,500. (Ref. EB-2015-0179, Exhibit A, Tab 1, page 4)

ENBRIDGE GAS DISTRIBUTION INC. (ENBRIDGE)
RESPONSES TO INTERROGATORIES OF BOMA

INTERROGATORY #26

General

Ref: Page 20, Paragraph 58

In community expansion projects in the past ten years, please provide a comparison of EGD's forecast and actual costs of expansion programs, together with the actual versus forecast conversions for the ten year period, with reference to OEB case numbers in cases where leave to construct was required.

RESPONSE

Enbridge has only completed one community expansion project in the last ten years that required a Leave to Construct application which was the provision of service to the community of Alfred and Plantagenet in eastern Ontario in 2008 (EB-2007-0745). The actual project cost was $2,313,444, which was $320,838 less than the original total cost estimate of $2,634,282. The Company's Leave to Construct Application associated with this project was based on the addition of 2,376 customers for feasibility calculation purposes. The in-service date for this project was October 30, 2008 and since that time 1,382 customers have been added to the facilities constructed to serve this community.

ENBRIDGE GAS DISTRIBUTION INC. (ENBRIDGE)
RESPONSES TO INTERROGATORIES OF SEC

INTERROGATORY #17

[p.26] Please explain how Enbridge determined the number of potential customers who will convert to natural gas (forecast customers)? How does the ratio between potential and forecast customers compare to Enbridge's past experience with connecting new communities?

RESPONSE

The customer forecast is based on the assumption that 75% of existing homes and businesses will convert to natural gas over 10 years – this assumption was made based on customer surveys conducted in the Fenelon Falls and Bobcaygeon areas on behalf of Enbridge by a third party market research firm.

Enbridge has interpreted the question "How does the ratio between potential and forecast customers compare to Enbridge's past experience with connecting new communities?" to mean "How does the ratio between forecast and actual customers compare to Enbridge's past experience with connecting new communities?"

Please see the response to BOMA Interrogatory #26 at Exhibit S3.EGDI.BOMA.26.

TAB 5

ENBRIDGE GAS DISTRIBUTION INC. (ENBRIDGE)
RESPONSES TO INTERROGATORIES OF VECC

INTERROGATORY #6

Reference: Page 20

a) EGD has proposed a rate impact limit on existing customers of $24 per year. Please explain the rationale for this figure (why was it chosen).
b) EGD has forecast costs of approximately $410 million to attach 16,000 homes under its proposal. This works out to approximately $25k per customer attached. Please provide the current average attachment costs for: i) an infill customer; (ii) a new subdivision or service territory customer attached under the current EBO 188 rules.

RESPONSE

a) Please refer to the Company's evidence at Exhibit R3, page 20, paragraphs 58 to 59 and the Company's response to OGA Interrogatory #10 at Exhibit S3.EGDI.OGA.10.

b) The current average attachment costs based on 2015 actual results are:
   i. Infill customers; $8,070
   ii. New subdivision customer; $1,760

basis for ten years (Column 8) only two of the thirty-nine potential community expansion projects would achieve PIs in excess of 0.4, the revised project PI proposed by Union Gas.

57. The estimated capital costs used to determine the PIs shown in Table 3 are based on transmission main that would need to be built to extend service to these communities. The main factor leading to the low PIs for these potential projects are high capital costs that are driven by long distances from the existing gas distribution system, difficult terrain and contingency amounts that have been factored into these estimates. Enbridge expects that once more detailed assessments of the design and construction requirements of these projects and scheduling are completed and once the work is tendered contingency amounts can be reduced resulting in lower overall capital cost estimates.

Proposal Objectives

58. The parameters of Enbridge's proposal in this proceeding have been set to achieve the following objectives:

- To maximize the number of new communities to receive natural gas service without the use of provincial funding support, and
- To limit the rate impacts on existing customers to a maximum approximating $2 per month ($24 per year) over the multi-year expansion program.

59. Under this proposal Enbridge expects that it could complete approximately thirty-nine community expansion projects that would provide natural gas service to approximately 16,000 homes and businesses in the first ten years at a total capital cost of approximately $410 million. In assessing the second objective guidance can be found in the level of ratepayer subsidy that the Board has determined to be appropriate for the funding of the Demand Side Management programs of both Enbridge and Union Gas (EB-2015-0029/EB-2015-0049 Decision and Order, page 6).

Elements of the Enbridge Proposal

a) Adopt Union's proposed definitions of a Community Expansion Project and a Small Main Extension Project;

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ENBRIDGE GAS DISTRIBUTION INC. (ENBRIDGE)
RESPONSES TO INTERROGATORIES OF OGA

INTERROGATORY #10

Ref: [p. 20]

Please explain how and to what extent Enbridge believes the Board's rules with respect to DSM should be applicable to uneconomic community expansions.

RESPONSE

Despite obvious differences in the nature of DSM and community expansion, both initiatives serve the public interest. In both cases it is Enbridge's view that a modest increase to customer rates justifies the net economic benefits to society. In defining its objectives for the proposed community expansion portfolio, Enbridge considered broad guidance on what might constitute a reasonable increase to rates. The Company felt the OEB's guidance in EB-2015-0029/0049 provided appropriate direction in this regard.

TAB 6

ENBRIDGE GAS DISTRIBUTION INC. (ENBRIDGE)
RESPONSES TO INTERROGATORIES OF BOMA

INTERROGATORY #19

General

Ref: Page 11, Paragraph 36, Issue 10

Please provide the forecast reduction to Greenhouse Gas ("GHG") reduction in Ontario over the next ten years that would result from implementation of EGD's expansion proposal. What percentage of Ontario's 2030 GHG target reduction would the reduction be?

RESPONSE

The GHG reduction in Ontario over the next ten years, i.e., by 2026, is estimated to be 29,021 tonnes. The Ontario GHG emissions are expected to reduce from 170.2 mega tonnes CO_2e in 2014 to 114.5 mega tonnes CO_2e by 2030, representing a reduction of 55.7 mega tonnes CO_2e. The GHG reduction from the Community Expansion projects over the next ten years would represent only 0.05% of Ontario's reduction from 2014 to 2030.

ENBRIDGE GAS DISTRIBUTION INC. (ENBRIDGE)
RESPONSES TO INTERROGATORIES OF BOMA

INTERROGATORY #20

General

Ref: Issue 10

What is EGD's estimate (or measured amount) of the amount of GHG emissions resulting from methane emissions from its natural gas operations in Ontario currently, including emissions from pipelines, compressors, storage facilities, and all other equipment? Does EGD measure such emissions? Please discuss in detail. What quantitative targets, if any, does EGD have to reduce such methane emissions over the next few years? What additional methane and GHG emissions would result from the proposed CEP?

RESPONSE

The total emissions from Enbridge's natural gas operations in Ontario as reported to Environment Canada for 2014 were 298,414 tonnes of CO_2e. This contains emissions from our natural gas distribution and storage operations in Ontario, including stationary combustion, venting, flaring and fugitive emissions. Enbridge does not measure these emissions rather Enbridge uses standardized industry specific quantification methods and emission factors to calculate GHG emissions.

Enbridge Inc. is currently working with all of its business units, including Enbridge Gas Distribution, to develop multi-year targets for GHG reductions specific to the individual business units operations. It is expected that these will be made publicly available in early 2017.

It is difficult to determine what additional GHG emissions would result from the proposed CEP, without having specific data on each community expansion project.

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ENBRIDGE GAS DISTRIBUTION INC. (ENBRIDGE)
RESPONSES TO INTERROGATORIES OF CCC

INTERROGATORY #11

Reference: EGD Evidence/p. 20

Is it EGD's position that as long as the impact on customers is limited to $2 per month, subsidies to fund expansion should go forward? Given there are risks to its customers related to attachment forecasts and costing forecasts, how would EGD ensure that this threshold is not exceeded?

RESPONSE

The results of the analysis of the Company's proposal in this proceeding are based on preliminary cost and revenue estimates for the thirty-nine potential community expansion projects listed. Based on this analysis the estimated average bill impact for a residential customer would be $12.11 per year, or just over $1.00 per month (Ref. Enbridge Evidence, Exhibit R3, page 32). The Company's proposal calls for the PI of the Community Expansion Portfolio to be managed to a level of 0.5 or greater. This constraint will limit the degree of ratepayer subsidy attributable to the proposed program.

TAB 7

Table 6: LNG Costing Scenario

				Pipeline Solution			LNG Solution						
	Community	Potential Customers	Distance from Source (kms)	Required Investment (pipeline)	PI Proposed (Pipeline)	Annual Capital Subsidy with Pipeline	Required Investment (LNG)	Proposed PI (LNG)	Annual Capital Subsidy with LNG	Gas Cost Subsidy with LNG	Total Annual Subsidy with LNG	Cross Subsidy Pipeline vs LNG	Proposed Solution
Col 1	Col 2	Col 3	Col 4	Col 5	Col 6	Col 7	Col 8	Col 9	Col 10	Col 11	Col 12	Col 13	Col 14
1	Fenelon Falls & Bobcaygeon	6,242	47	$111,956,990	0.70	$2,200,986	$85,868,692	0.93	$473,884	$6,770,050	$7,243,934	($5,042,949)	Pipeline
2	Scugog Island	1,468	8	$19,714,126	0.58	$582,870	$19,849,630	0.58	$591,415	$985,950	$1,577,365	($994,495)	Pipeline
3	Cambray	400	10	$7,583,140	0.45	$273,798	$8,637,117	0.40	$340,260	$252,000	$592,260	($318,462)	Pipeline
4	Zephyr	250	11	$5,184,375	0.39	$227,009	$5,365,852	0.38	$238,453	$157,500	$395,953	($168,944)	Pipeline
5	Cotnam Island	100	10	$2,171,890	0.36	$91,641	$3,813,591	0.25	$195,165	$63,000	$258,165	($166,523)	Pipeline
6	Sarsfield	200	10	$4,147,500	0.38	$183,231	$4,590,881	0.35	$211,190	$126,000	$337,190	($153,959)	Pipeline
7	Udora	400	8	$8,842,300	0.37	$393,267	$7,147,877	0.44	$286,418	$252,000	$538,418	($145,152)	Pipeline
8	Wilkinson Sub, Innisfil	90	2	$1,897,055	0.35	$88,543	$3,290,963	0.25	$176,441	$56,700	$233,141	($144,598)	Pipeline
9	Town of Marsville	350	8	$8,047,225	0.36	$364,530	$6,577,702	0.42	$271,864	$220,500	$492,364	($127,834)	Pipeline
10	Town of Mansfield	294	8	$6,817,129	0.36	$310,997	$5,814,559	0.40	$247,777	$185,220	$432,997	($121,999)	Pipeline
11	Glendale Subdivision	100	6	$2,509,250	0.31	$122,931	$3,441,281	0.26	$181,704	$63,000	$244,704	($121,773)	Pipeline
12	Caledon - Humber Station	72	3	$2,067,960	0.26	$107,286	$3,039,368	0.21	$168,542	$45,360	$213,902	($106,616)	Pipeline
13	Enniskillen	200	10	$5,109,500	0.33	$243,894	$4,590,881	0.35	$211,190	$126,000	$337,190	($93,297)	Pipeline
14	Village of Lisle	400	5	$9,966,800	0.34	$464,176	$7,262,277	0.43	$293,632	$252,000	$545,632	($81,456)	Pipeline
15	5th Line, Mono Twp.	32	3	$1,798,760	0.15	$107,404	$2,594,668	0.14	$157,593	$20,160	$177,753	($70,349)	Pipeline
16	Sandford	200	9	$5,590,500	0.31	$274,225	$4,590,881	0.35	$211,190	$126,000	$337,190	($62,965)	Pipeline
17	Leasksdale	200	8	$5,590,500	0.31	$274,225	$4,590,881	0.35	$211,190	$126,000	$337,190	($62,965)	Pipeline
18	Curran	100	7	$3,640,250	0.25	$194,251	$3,441,281	0.26	$181,704	$63,000	$244,704	($50,453)	Pipeline
19	Bainsville	100	7	$3,997,750	0.23	$216,794	$3,441,281	0.26	$181,704	$63,000	$244,704	($27,910)	Pipeline
20	Westmeath	200	10	$6,448,500	0.28	$328,329	$4,590,881	0.35	$211,190	$126,000	$337,190	($8,861)	Pipeline
21	Haydon	100	10	$4,478,750	0.22	$247,126	$3,441,281	0.26	$181,704	$63,000	$244,704	$2,421	LNG
22	Woodville	300	9	$9,290,550	0.30	$464,539	$5,797,180	0.41	$244,251	$189,000	$433,251	$31,287	LNG
23	South Glengary	200	10	$8,203,500	0.24	$438,997	$4,590,881	0.35	$211,190	$126,000	$337,190	$101,807	LNG
24	Caledon - Torbram Road	79	11	$6,169,283	0.17	$362,804	$3,117,191	0.23	$170,343	$49,770	$220,113	$142,691	LNG
25	Chute-a-Blondeau	200	10	$9,634,780	0.23	$509,218	$5,335,501	0.33	$238,111	$126,000	$364,111	$145,107	LNG
26	Hockley Village, Mono Twp.	64	13	$6,204,020	0.15	$371,382	$2,950,428	0.20	$166,215	$40,320	$206,535	$164,847	LNG
27	Maxville	400	10	$14,727,400	0.27	$764,373	$7,147,877	0.44	$286,418	$252,000	$538,418	$225,955	LNG
28	Lanark & Balderson	400	12	$16,337,800	0.26	$825,855	$8,637,117	0.40	$340,260	$252,000	$592,260	$233,595	LNG
29	Douglas	200	20	$12,369,720	0.20	$681,680	$5,335,501	0.33	$238,111	$126,000	$364,111	$317,569	LNG
30	Eganville	700	40	$26,853,960	0.27	$1,329,921	$14,063,487	0.43	$523,371	$441,000	$964,371	$365,551	LNG
31	Kinburn/Fitzroy Harbour	500	15	$22,175,820	0.25	$1,140,970	$10,588,874	0.41	$410,313	$315,000	$725,313	$415,658	LNG
32	St. Isidore	400	10	$18,315,400	0.24	$990,628	$7,147,877	0.44	$286,418	$252,000	$538,418	$452,209	LNG
33	Kirkfield	800	25	$38,400,280	0.24	$2,004,994	$15,604,747	0.44	$567,538	$504,000	$1,071,538	$933,456	LNG
34	Minden	1,414	68	$78,108,620	0.22	$4,183,344	$26,418,325	0.46	$923,821	$891,000	$1,814,821	$2,368,522	LNG
35	Coboconk	400	40	$39,174,640	0.17	$2,265,917	$8,637,117	0.40	$340,260	$252,000	$592,260	$1,673,656	LNG
36	Norland	200	50	$44,373,120	0.13	$2,699,772	$5,335,501	0.33	$238,111	$126,000	$364,111	$2,335,661	LNG
37	Barry's Bay	500	90	$71,120,300	0.15	$4,227,345	$10,761,872	0.41	$421,221	$315,000	$736,221	$3,491,123	LNG
38	Kinmount	200	60	$52,654,120	0.13	$3,221,961	$5,335,501	0.33	$238,111	$126,000	$364,111	$2,857,850	LNG
39	Haliburton (Dysert)	2,035	88	$104,815,526	0.23	$5,538,366	$37,161,620	0.47	$1,272,200	$1,281,893	$2,554,093	$2,984,273	LNG

87. The figures in Column 7 of Table 6 represent the value of the annual ratepayer subsidy for each community expansion project assuming transmission main supply. Column 10 shows the ratepayer subsidy with respect to capital costs for all of the projects assuming LNG supply (all transmission main capital cost removed and the estimated cost of the required LNG decanting facility for each project added).

88. As expected the reduced capital cost of the LNG alternative leads to reduced ratepayer subsidies and higher PIs for this option compared to the pipeline supply alternative when only capital costs are considered. However, to complete this comparison it is necessary to add in the incremental cost of the LNG supply which Enbridge proposes to recover from all customers. The figures in Column 11 represent the estimated incremental cost of LNG supply and Column 12 shows the total subsidy associated with each project assuming LNG Supply. Column 13 shows the net difference in the subsidy value between the two alternatives.

Table 5: Preliminary Profitability Analysis with Proposed TES and ITE Enhancement

			Potential Customers			Forecast Customers								
	Community	Communities	Conversions	New	Total	Conversions	New	Total	Distance from Source (kms)	Total Investment	PI Normal	PI Proposed	CIAC req'd for PI=0.8	Proposed Solution
Col 1	Col 2	Col 3	Col 4	Col 5	Col 6	Col 7	Col 8	Col 9	Col 10	Col 11	Col 12	Col 13	Col 14	Col 15
1	Fenelon Falls & Bobcaygeon	2	3,029	3,213	6,242	2,272	3,213	5,485	47	$111,956,990	0.26	0.70	$10,980,000	Pipeline
2	Scugog Island	1	1,177	291	1,468	883	291	1,174	8	$19,714,126	0.24	0.58	$6,189,863	Pipeline
3	Cambray	1	400		400	300	0	300	10	$7,583,140	0.19	0.45	$3,565,567	Pipeline
4	Zephyr	1	250		250	188	0	188	11	$5,184,375	0.16	0.39	$3,124,677	Pipeline
5	Cotnam Island	1	100		100	75	0	75	10	$2,171,890	0.13	0.36	$1,285,518	Pipeline
6	Sarsfield	1	200		200	150	0	150	10	$4,147,500	0.15	0.38	$2,535,094	Pipeline
7	Udora	1	400		400	300	0	300	8	$8,842,300	0.16	0.37	$5,460,127	Pipeline
8	Wilkinson Sub, Innisfil	1	90		90	68	0	68	2	$1,897,055	0.12	0.35	$1,253,680	Pipeline
9	Town of Marsville	1	350		350	263	0	263	8	$8,047,225	0.16	0.36	$5,102,644	Pipeline
10	Town of Mansfield	1	294		294	221	0	221	8	$6,817,129	0.15	0.36	$4,366,730	Pipeline
11	Glendale Subdivision	1	100		100	75	0	75	6	$2,509,250	0.12	0.31	$1,781,728	Pipeline
12	Caledon - Humber Station	1	72		72	54	0	54	3	$2,067,960	0.10	0.26	$1,594,818	Pipeline
13	Enniskillen	1	200		200	150	0	150	10	$5,109,500	0.14	0.33	$3,497,095	Pipeline
14	Village of Lisle	1	400		400	300	0	300	5	$9,966,800	0.15	0.34	$6,584,626	Pipeline
15	5th Line, Mono Twp.	1	32		32	24	0	24	3	$1,798,760	0.05	0.15	$1,674,004	Pipeline
16	Sandford	1	200		200	150	0	150	9	$5,590,500	0.13	0.31	$3,978,095	Pipeline
17	Leasksdale	1	200		200	150	0	150	8	$5,590,500	0.13	0.31	$3,978,095	Pipeline
18	Curran	1	100		100	75	0	75	7	$3,640,250	0.11	0.25	$2,912,728	Pipeline
19	Bainsville	1	100		100	75	0	75	7	$3,997,750	0.10	0.23	$3,270,228	Pipeline
20	Westmeath	1	200		200	150	0	150	10	$6,448,500	0.13	0.28	$4,836,094	Pipeline
21	Haydon	1	100		100	75	0	75	10	$3,441,281	0.11	0.26	$2,679,802	LNG
22	Woodville	1	300		300	225	0	225	9	$5,797,180	0.17	0.41	$3,602,262	LNG
23	South Glengary	1	200		200	150	0	150	10	$4,590,881	0.15	0.35	$3,114,668	LNG
24	Caledon - Torbram Road	1	79		79	59	0	59	11	$3,117,191	0.10	0.23	$2,512,246	LNG
25	Chute-a-Blondeau	1	200		200	150	0	150	10	$5,335,501	0.14	0.33	$3,511,703	LNG
26	Hockley Village, Mono Twp.	1	64		64	48	0	48	13	$2,950,428	0.09	0.20	$2,451,366	LNG
27	Maxville	1	400		400	300	0	300	10	$7,147,877	0.18	0.44	$4,224,146	LNG
28	Lanark & Balderson	1	400		400	300	0	300	12	$8,637,117	0.17	0.40	$5,018,218	LNG
29	Douglas	1	200		200	150	0	150	20	$5,335,501	0.14	0.33	$3,511,703	LNG
30	Eganville	1	700		700	525	0	525	40	$14,063,487	0.19	0.43	$7,718,759	LNG
31	Kinburn/Fitzroy Harbour	1	500		500	375	0	375	15	$10,588,874	0.18	0.41	$6,051,359	LNG
32	St. Isidore	1	400		400	300	0	300	10	$7,147,877	0.18	0.44	$4,224,146	LNG
33	Kirkfield	1	800		800	600	0	600	25	$15,604,747	0.19	0.44	$8,370,140	LNG
34	Minden	1	1,414		1,414	1,061	0	1,061	68	$26,418,325	0.20	0.46	$13,624,673	LNG
35	Coboconk	1	400		400	300	0	300	40	$8,637,117	0.17	0.40	$5,018,218	LNG
36	Norland	1	200		200	150	0	150	50	$5,335,501	0.14	0.33	$3,511,703	LNG
37	Barry's Bay	1	500		500	375	0	375	90	$10,761,872	0.17	0.41	$6,212,245	LNG
38	Kinmount	1	200		200	150	0	150	60	$5,335,501	0.14	0.33	$3,511,703	LNG
39	Haliburtion (Dysert)	1	2,035		2,035	1,526	0	1,526	88	$37,161,620	0.20	0.47	$18,762,625	LNG

82. Table 5 expands upon the information provided in Table 4 by adding the "Proposed PI" and the calculated Contribution in Aid of Construction ("CIAC") required in order to bring the PIs of these potential projects up to 0.8. The Proposed PIs include the impact of the additional financial support provided by the implementation of the SES and the ITE. Based on the Company's current cost estimates fourteen projects achieve PIs greater than or equal to 0.4. However, only three potential projects achieve a PI of 0.4 or greater under the Company's proposal when the cost of transmission mains is included in the analysis for all projects. It can also be seen that in some cases significant additional financial support would be required in order to achieve PIs of 0.8 as set-out in EBO 188.

83. As noted earlier, the Company has also identified a subset of communities that could potentially be more economically served through the utilization of LNG as an alternate means of transporting natural gas to these locations. This analysis indicates that in cases where the capital cost of transmission main to connect these communities to the Company's existing natural gas distribution system

ENBRIDGE GAS DISTRIBUTION INC. (ENBRIDGE)
RESPONSES TO INTERROGATORIES OF BOARD STAFF

INTERROGATORY #9

Ref: Evidence of Enbridge Gas Distribution, Pages 29-30, Para. 88 and 89

Enbridge has provided data showing the LNG alternative for all communities. Based on the company`s analysis it is estimated that it would be more economical to serve nineteen of these communities with the LNG alternative. Implicit in Enbridge`s approach is the understanding that the incremental cost of the LNG as compared to the normal cost of system supply required to serve these communities would be included in Enbridge`s rates and recovered from all customers in the same manner as the Company`s gas supply plan.

a) Why would the incremental cost of LNG supply be recovered from all customers?

b) Is it possible for Enbridge to isolate and determine the incremental cost of LNG supply to each of the communities?

RESPONSE

a) In the Company's view the liquefaction of natural gas simply provides for a different means of transporting natural gas from one place to another. In this sense the use of LNG to provide service to more distant communities is an alternative to the construction of gas transmission mains. As such, the Company has proposed to recover the incremental cost of LNG supplies from all customers as it would recover the cost of transmission main.

b) Yes.

TAB 8

ENBRIDGE GAS DISTRIBUTION INC. (ENBRIDGE)
RESPONSES TO INTERROGATORIES OF VECC

INTERROGATORY #3

Reference: All

f) Please produce a table which shows the elements of the proposal of EGD and contrasts and compares that with the proposal of Union Gas.

g) Please provide a column in the above table with EGD's comment as to the reason for the difference in any specific aspect of the two proposals.

RESPONSE

f) and g) Please see the requested comparison Enbridge vs. Union Gas

	Elements of proposal	**Enbridge**	**Union**	**Comments**
1	Revenue surcharge in addition to existing distribution revenue	System Expansion Surcharge(SES) to be charged over 40 years	Temporary Expansion Surcharge (TES) applicable up to a maximum of the first 10 years after in service date of the project	Enbridge proposal provides a better PI, and allows more projects under consideration to go forward.
2	Revenue surcharge rate	$0.23 / m^3	$0.23 / m^3	Same
3	Treatment of revenue surcharge	Revenue	Revenue	Same
4	Municipal tax rebate (ITE)	To be applied over 10 years	To be applied up to 10 years	Enbridge proposal fixed ten years.
5	Community Expansion Portfolio (the "CE Portfolio")	Separate rolling portfolio for defined expansion projects	Projects with PI > 0.4 can go forward	Allows a degree of cross subsidy with the CE Portfolio, more projects under consideration by Enbridge can proceed

Table 3: Preliminary Profitability Analysis (Normal PI, Union Gas EB-2015-0179 PI, Rolling Term PI)

	Community	Potential Customers	Distance from Source (kms)	Total Investment Pipeline	Normal PI	Union Gas EB-2015-0179 PI	TES Rolling Term PI
Col 1	Col 2	Col 3	Col 4	Col 5	Col 6	Col 7	Col 8
1	Fenelon Falls & Bobcaygeon	6,242	47	111,956,990	0.26	0.38	0.44
2	Scugog Island	1,468	8	19,714,126	0.24	0.38	0.42
3	Cambray	400	10	7,583,140	0.19	0.30	0.33
4	Zephyr	250	11	5,184,375	0.16	0.26	0.28
5	Cotnam Island	100	10	2,171,890	0.13	0.23	0.26
6	Sarsfield	200	10	4,147,500	0.15	0.26	0.28
7	Udora	400	8	8,842,300	0.16	0.26	0.28
8	Wilkinson Sub, Innisfil	90	2	1,897,055	0.12	0.22	0.25
9	Town of Marsville	350	8	8,047,225	0.16	0.25	0.27
10	Town of Mansfield	294	8	6,817,129	0.15	0.25	0.27
11	Glendale Subdivision	100	6	2,509,250	0.12	0.21	0.23
12	Caledon - Humber Station	72	3	2,067,960	0.10	0.18	0.19
13	Enniskillen	200	10	5,109,500	0.14	0.23	0.24
14	Village of Lisle	400	5	9,966,800	0.15	0.24	0.26
15	5th Line, Mono Twp.	32	3	1,798,760	0.05	0.11	0.12
16	Sandford	200	9	5,590,500	0.13	0.22	0.23
17	Leasksdale	200	8	5,590,500	0.13	0.22	0.23
18	Curran	100	7	3,640,250	0.11	0.18	0.19
19	Bainsville	100	7	3,997,750	0.10	0.17	0.18
20	Westmeath	200	10	6,448,500	0.13	0.20	0.22
21	Haydon	100	10	4,478,750	0.10	0.16	0.17
22	Woodville	300	9	9,290,550	0.13	0.21	0.23
23	South Glengary	200	10	8,203,500	0.12	0.18	0.19
24	Caledon - Torbram Road	79	11	6,169,283	0.08	0.13	0.14
25	Chute-a-Blondeau	200	10	9,634,780	0.11	0.17	0.18
26	Douglas	200	20	12,369,720	0.10	0.16	0.16
27	Eganville	700	40	26,853,960	0.14	0.20	0.21
28	Kinburn/Fitzroy Harbour	500	15	22,175,820	0.12	0.19	0.20
29	Hockley Village, Mono Twp.	64	13	6,204,020	0.08	0.12	0.13
30	Maxville	400	10	14,727,400	0.13	0.20	0.21
31	Lanark & Balderson	400	12	16,337,800	0.13	0.19	0.20
32	St. Isidore	400	10	18,315,400	0.12	0.18	0.19
33	Kirkfield	800	25	38,400,280	0.12	0.18	0.19
34	Minden	1,414	68	78,108,620	0.11	0.17	0.18
35	Coboconk	400	40	39,174,640	0.08	0.14	0.14
36	Norland	200	50	44,373,120	0.07	0.12	0.12
37	Barry's Bay	500	90	71,120,300	0.09	0.13	0.13
38	Kinmount	200	60	52,654,120	0.08	0.12	0.12
39	Haliburtion (Dysert)	2,035	88	104,815,526	0.12	0.18	0.19

56. Table 3 shows the project PIs for all thirty-nine of the potential projects that Enbridge has investigated. None of these projects is capable of generating a PI value approaching the EBO 188 project PI threshold of 0.8. As illustrated in Column 7, none of these potential projects would achieve PIs of 0.4 in the event the relief Union Gas has sought in EB-2015-0179 were applied in assessing the economic feasibility of extending natural gas service to these communities. In fact, even when the Union Gas proposal is modified so as to apply the TES on a rolling

ENBRIDGE GAS DISTRIBUTION INC. (ENBRIDGE)
RESPONSES TO INTERROGATORIES OF BOARD STAFF

INTERROGATORY #5

Ref: Evidence of Enbridge Gas Distribution, Pages 21-22, Para. 61 and 62 and Union Gas Limited Evidence in EB-2015-0179, Page 18

Enbridge has proposed a System Expansion Surcharge (SES) which is similar to the Temporary Expansion Surcharge (TES) proposed by Union in EB-2015-0179. Union in its evidence noted that the TES would only apply to general service customers and not contract customers. Enbridge in its evidence has indicated that the surcharge would apply to all customers until the project achieves a Profitability Index (PI) of 1.0.

a) Please confirm that Enbridge's proposal would apply to all customers including contract customers.

b) Does Enbridge propose a maximum monthly or annual surcharge for contract customers or would it be a straight volumetric charge irrespective of the amount?

RESPONSE

a) Confirmed.

b) The Enbridge proposal does not provide for a limit to or a maximum monthly or annual surcharge for contract customers.

TAB 9

ENBRIDGE GAS DISTRIBUTION INC. (ENBRIDGE)
RESPONSES TO INTERROGATORIES OF PARKLAND

INTERROGATORY #2

Reference: Enbridge EB-2016-0004 Evidence, pg. 7, para. 25

Enbridge states that extending natural gas service to unserved communities will benefit all ratepayers. Enbridge also states that the incremental revenue generated by future customer attachments on expansion projects will benefit all of Enbridge's customers.

a. Fully describe how existing natural gas ratepayers will benefit from extending natural gas service to unserved communities. In this discussion, please distinguish between benefits that may be experienced by all Ontarians versus benefits that will be experienced solely by existing natural gas ratepayers.

b. Explain how existing customers will benefit from the revenue associated with expansion projects if those projects have a PI of less than 1.0.

RESPONSE

a. The Board's EBO 134 decision provided for use of two further economic tests beyond consideration of discounted cash flows associated with a system expansion project. The Stage 2 analysis generally takes into account the energy cost savings that potential customers could achieve relative to their existing fuel usage. The Stage 3 analysis adds quantifiable and non-quantifiable public interest benefits associated with a project. Given that Stage 3 benefits address the broader societal benefits of a gas distribution system expansion project they would typically be felt beyond the confines of a single gas distributor's service area. Since all of premises served by Enbridge are located in Ontario the Company's customers benefit from Stage 3 benefits substantially.

b. The discounted cash flow analysis called for in EBO 188 is limited in that it does not consider that when customers are added to the Company's gas distribution system that the fixed costs of operating the system are spread over a broader customer base, or that additional customers typically continue to be added to the these portions of the system after the ten year customer addition forecast horizon applied in the feasibility test has elapsed. The EBO 188 tests also do not recognize that at some future point in time the revenues associated with a project

will exceed the revenue requirement associated with a project. Further, the EBO 188 tests do not factor in the societal benefits captured in the EBO 134 Stage 2 and 3 analyses noted in part (a) of the Company's response to this interrogatory.

ENBRIDGE GAS DISTRIBUTION INC. (ENBRIDGE)
RESPONSES TO INTERROGATORIES OF ENERGY PROBE (EP)

INTERROGATORY #2

Ref**:** Enbridge Evidence, page 4

Enbridge states on page 4:

"In the early years community expansion projects tend to be detractors to profitability, however at some future point the cash flows cross over such that these projects begin to contribute to profitability. Except for the most profitable customer additions, existing customers typically support the revenue requirement of new customer for a period of time through rates. Overtime, as the revenue requirement associated with these new customers' declines, they contribute to lowering rate for customer who preceded them and cross subsidize newer customers."

a) Does Enbridge have any evidence that olderLexisting customers at any point STOP subsidizing new customers? Is it more likely that older, more profitable customers, are continuously used to subsidize the gas system?

b) Can Enbridge provide evidence that at any point it has stopped charging older customers for any expansion to its distribution network?

RESPONSE

a) The best way to demonstrate that older existing customers at any point no longer subsidize new customers is a review of the Company's historic Profitability Index within the Investment Portfolio. From 2001 to 2015 the Company's Investment Portfolio PIs ranged from a low of 0.95 to a high of 1.80, with a cumulative net present value amounting to over $650 million during this time. This is a clear indication that over this period of time the customers that were added to the Company's distribution system have subsidized the existing customers, as opposed to the opposite.

b) Yes, please see the Company's reply to part (a) of this question.

ENBRIDGE GAS DISTRIBUTION INC. (ENBRIDGE)
RESPONSES TO INTERROGATORIES OF SOUTHERN BRUCE

3 – Southern Bruce (EDGI) –

INTERROGATORY #2

Reference i) Page 3, Paragraph 10

Preamble: "In the early years community expansion projects tend to be detractors to profitability, however at some future point the cash flows cross over such that these projects begin to contribute to profitability. Except for the most profitable customer additions, existing customers typically support the revenue requirement of new customers for a period of time through rates. Overtime, as the revenue requirement associated with these new customers' declines, they contribute to lowering rates for customers who preceded them and cross subsidize newer customers. Under this model Enbridge has been successful in doubling the number of customers in its franchise since the early 90's which contributed to minimizing of rate increases during this period."

a) Is Enbridge opposed to competing with new entrants on a level playing field?
b) How does the Board permitting cross-subsidies within a single utility, as described in your evidence, facilitate competition on a level playing field with new entrants?

RESPONSE

a) No.

b) Enbridge is of the view that within the context of this proceeding the main concern of the Board should be how to support the extension of gas distribution services to as many Ontario consumers as possible without imposing an undue burden on existing natural gas consumers, not how to subsidize the activities of new entrants to the market. The cross-utility subsidy model suggested by some parties to this proceeding is severely flawed in that it ignores certain fundamental attributes and principles of utility economics. Should the Board decide a new entrant is able to provide gas service to currently unserved communities, Enbridge would expect the Board to allow for cross subsidies in this new entrant's rates that are the same as or similar to those contained in incumbent utility rates.

TAB 10

ENBRIDGE GAS DISTRIBUTION INC. (ENBRIDGE)
RESPONSES TO INTERROGATORIES OF SEC

INTERROGATORY #11

[New Brunswick Utilities and Energy Board, Matter No. 0306, Response to NBEUB IR-3] In New Brunswick, Enbridge's affiliate, Enbridge Gas New Brunswick is seeking approval from the New Brunswick Energy and Utilities Board for a customer retention program to provide funds to customers so that they do not switch from natural gas to propane because of the lows North American propane costs. Considering that Enbridge Gas New Brunswick is having trouble keeping its existing customers, please explain why Enbridge believe its forecasts of potential customers who use propane, and will convert to natural gas, is reasonable.

RESPONSE

Compared to Enbridge New Brunswick, Enbridge Gas Distribution, Ontario operates in a different competitive environment. In Ontario, natural gas has a significant price advantage over other energy sources and is an attractive fuel choice in this province. As evident from the table below, this price advantage is projected to sustain over the long-term. Based on these projections, Enbridge believes that its forecast of potential customers is reasonable.

Energy Price Forecast (Per Equivalent Volume Factors)

Residential

Price Per Equivalent Volume Factors

		2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Natural Gas	$/m3	0.40	0.39	0.38	0.39	0.40	0.41	0.42	0.42	0.43	0.44	0.44
Heating Oil	$/m3	0.94	1.11	1.20	1.25	1.31	1.37	1.39	1.42	1.45	1.47	1.50
Propane	$/m3	0.76	0.83	0.84	0.93	0.94	0.99	1.03	1.05	1.06	1.08	1.10
Electricity	$/m3	1.20	1.25	1.27	1.33	1.32	1.35	1.40	1.44	1.41	1.43	1.45

Commercial

Price Per Equivalent Volume Factors

		2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Natural Gas	$/m3	0.33	0.31	0.31	0.32	0.33	0.34	0.35	0.35	0.36	0.36	0.37
Light Fuel Oil	$/m3	0.67	0.80	0.86	0.90	0.94	0.98	1.00	1.02	1.04	1.06	1.08
Propane	$/m3	0.65	0.70	0.71	0.79	0.80	0.84	0.87	0.89	0.90	0.92	0.94
Electricity	$/m3	1.19	1.24	1.27	1.32	1.32	1.35	1.39	1.44	1.40	1.42	1.44

Source: Enbridge April, 2016 QRAM forecast

TAB 11

ENBRIDGE GAS DISTRIBUTION INC. (ENBRIDGE)
RESPONSES TO INTERROGATORIES OF ENERGY PROBE (EP)

INTERROGATORY #4

Ref**:** Enbridge Evidence, page 5

Enbridge states on page 5:

"More regulated utilities would increase the level of effort and cost required to regulate them. In short the regulator burden would increase."

Does Enbridge have any evidence to suggest that a more competitive environment - with more gas companies competing for new customers- would actually cost customers more (as regulatory costs would outweigh the benefits of competition)?

RESPONSE

Enbridge does not have any evidence to suggest that a more competitive environment with more gas companies competing for new customers would actually cost customers more, however, there has been no evidence brought forward in this proceeding indicating that an environment with more gas distributors competing for new customers would result in lower overall costs either. The Company has stated in its evidence that any new entrants should be required to demonstrate economic benefit to the market beyond that provided by incumbent service providers before being granted permission to embark upon their endeavors. The assessment of this benefit should include all costs including the cost associated with the regulation of such entities.