

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

INTERROGATORY #1

Reference: EGD Evidence, page 17, paragraph 51.

EGD states that the differences in its community expansion proposal from Union's "*are largely necessary due to the differences of distance and terrain between the regions served by the two utilities relative to the level of existing distribution rates*".

- (a) Please further explain each of the differences of distance and terrain referred to.
- (b) For each such difference please indicate how the difference necessitates differences in EGD's community expansion proposal compared to Union's.
- (c) Please elaborate on the impact of existing distribution rates of each of EGD and Union on the differences in EGD's community expansion proposal compared to Union's.

RESPONSE

- (a) Please see the Company's response to BOMA interrogatory #22(a) at Exhibit S3.EGDI.BOMA.22. Given that Enbridge and Union Gas are considering community expansion projects that are located in different geographic locations the nature of the terrain and distances to be traversed will differ from project to project and from company to company.
- (b) The key distinction is the estimated cost of the each company's projects. As indicated in the Company's evidence at Exhibit R3, paragraph 52, page 17 based on Enbridge's current cost estimates none of the identified community expansion projects would achieve a Project PI of 0.4. As such, if the Union Gas proposal was adopted by the Board none of the thirty-nine projects identified in Enbridge's evidence in this proceeding could go forward without further financial assistance.
- (c) Beyond the comments made at paragraph 51, including a general observation that higher existing rates can support a higher level of capital investment, Enbridge cannot provide further explanation / comments because it does not have a detailed enough understanding of Union Gas' costs and/or rate design.

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INTERROGATORY #2

Reference: EGD Evidence, page 21, paragraphs 61-62.

EGD has proposed a system expansion surcharge (SES) for customers served through the completion of a community expansion project *“for up to 40 years or until the project achieved a PI of 1.0”*. EGD has indicated that for its current community expansion projects, the SES to be applied would be set at \$0.23/m³.

- (a) Please illustrate with an example what EGD means by *“until the project achieved a PI of 1.0”*.
- (b) Please indicate the SES that would have to be applied to EGD's current community expansion projects to meet the existing E.B.O. 188 expansion criteria (i.e. each project PI not less than 0.8 and a expansion portfolio PI not less than 1.0).

RESPONSE

- (a) What Enbridge meant to state in its evidence is that the surcharge would be paid by all customers located in areas served by designated community expansion projects included in the Community Expansion Portfolio for up to the earlier of forty-years or until the Community Expansion Portfolio achieves a PI of 1.0.
- (b) Please see Enbridge's response to Energy Probe Interrogatory #9 at Exhibit S3.EGDI.EP.9.

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INTERROGATORY #3

Reference: EGD Evidence, page 22, paragraph 65.

EGD proposes to implement a “Municipal Tax Equivalent” (ITE) municipal contribution to its community expansion proposal projects, and that the ITE would, in each case, be in place for 10 years.

Please explain how EGD determined that 10 years would be the appropriate length of time to maintain the ITE.

RESPONSE

As indicated in the Company’s evidence at Exhibit R3, paragraph 66, page 22 it is Enbridge’s view that municipalities will benefit from the extension of gas services to their communities through reduced energy costs for municipally-owned facilities, higher disposable income on the part of many of their constituents, greater opportunity for economic development and incremental property tax revenues associated with projects themselves. As such, Enbridge believes it reasonable that the municipalities that are to receive such benefits should make some contribution toward the community expansion projects. The Company believes that the ten year ITE term proposed in its evidence strikes a reasonable balance between the cost to the municipalities of tax revenue foregone and the benefits they would receive.

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INTERROGATORY #4

Reference: EGD Evidence, page 27, Table 5.

IGUA is interested in understanding the impact of the contingency costs included by EGD in its preliminary community expansion project calculations.

Please reproduce the referenced table with one which includes a column (11A) with total investment restated on the basis that contingency costs are set at 0, and provide additional columns (12A, 13A and 14A) the values in which are calculated based on the new column 11A total investment costs.

RESPONSE

Please see the table below.

		Potential Customers				Forecast Customers																	
Community	Communities	Conversions	New	Total	Conversions	New	Total	Distance from Source (kms)	Total Investment	Total Investment w/o Contingency	PI Normal	Col 12	PI Proposed	Col 13	Col 13 A	CIAC req'd for PI=0.8	Col 14	Col 14 A	Col 15	Contingency Amount			
Col 1	Col 2	Col 3	Col 4	Col 5	Col 6	Col 7	Col 8	Col 9	Col 10	Col 11	Col 11 A	Col 12	Col 12 A	Col 13	Col 13 A	Col 14	Col 14 A	Col 15	Col 16	Col 16			
1	Ferelon Falls & Bobcaygeon	2	3,029	3,213	6,242	2,272	3,213	5,485	47	\$111,956,990	\$94,951,595	0.26	0.29	0.70	0.82	\$10,980,000			Pipeline	17,005,396			
2	Scugog Island	1	1,177	291	1,468	883	291	1,174	8	\$19,714,126	\$16,850,068	0.24	0.27	0.58	0.66	\$6,189,863	\$3,325,811		Pipeline	2,864,058			
3	Cambray	1	400		400	300	0	300	10	\$7,583,140	\$6,843,700	0.19	0.20	0.45	0.49	\$3,565,567	\$2,826,129		Pipeline	739,440			
4	Zephyr	1	250		250	188	0	188	11	\$5,184,375	\$4,306,875	0.16	0.18	0.39	0.44	\$3,124,677	\$2,247,179		Pipeline	877,500			
5	Cotnam Island	1	100		100	75	0	75	10	\$2,171,890	\$1,834,900	0.13	0.14	0.36	0.41	\$1,285,518	\$948,529		Pipeline	336,990			
6	Sarsfield	1	200		200	150	0	150	10	\$4,147,500	\$3,445,500	0.15	0.17	0.38	0.43	\$2,535,094	\$1,933,094		Pipeline	702,000			
7	Udora	1	400		400	300	0	300	8	\$8,842,300	\$7,312,000	0.16	0.18	0.37	0.43	\$5,460,127	\$3,929,832		Pipeline	1,530,300			
8	Wilkinson Sub, Innisfil	1	90		90	68	0	68	2	\$1,897,055	\$1,574,075	0.12	0.13	0.35	0.40	\$1,253,680	\$990,700		Pipeline	322,980			
9	Town of Marsville	1	350		350	263	0	263	8	\$8,047,225	\$6,696,625	0.16	0.17	0.36	0.42	\$5,102,644	\$3,692,045		Pipeline	1,410,600			
10	Town of Mansfield	1	294		294	221	0	221	8	\$6,877,129	\$5,618,965	0.15	0.17	0.36	0.41	\$4,366,790	\$3,168,554		Pipeline	1,198,164			
11	Glendale Subdivision	1	100		100	75	0	75	6	\$2,509,250	\$2,057,750	0.12	0.13	0.31	0.36	\$1,781,728	\$1,330,228		Pipeline	451,500			
12	Caledon - Humber Station	1	72		72	54	0	54	3	\$2,067,960	\$1,682,580	0.10	0.10	0.26	0.30	\$1,594,818	\$1,209,438		Pipeline	385,380			
13	Enniskillen	1	200		200	150	0	150	10	\$5,109,500	\$4,185,500	0.14	0.15	0.33	0.38	\$3,497,095	\$2,573,096		Pipeline	924,000			
14	Village of Lisle	1	400		400	300	0	300	5	\$9,966,800	\$8,177,000	0.15	0.17	0.34	0.40	\$6,584,626	\$4,794,828		Pipeline	1,789,800			
15	5th Line, Mono Twp.	1	32		32	24	0	24	3	\$1,798,760	\$1,424,480	0.05	0.05	0.15	0.17	\$1,674,004	\$1,299,724		Pipeline	374,280			
16	Sandford	1	200		200	150	0	150	9	\$5,590,500	\$4,555,500	0.13	0.15	0.31	0.36	\$3,978,095	\$2,943,094		Pipeline	1,035,000			
17	Leaskdale	1	200		200	150	0	150	8	\$5,590,500	\$4,555,500	0.13	0.15	0.31	0.36	\$3,978,095	\$2,943,094		Pipeline	1,035,000			
18	Curran	1	100		100	75	0	75	7	\$3,640,250	\$2,927,750	0.11	0.11	0.25	0.28	\$2,912,728	\$2,200,428		Pipeline	712,500			
19	Bainsville	1	100		100	75	0	75	7	\$3,997,750	\$3,202,750	0.10	0.11	0.23	0.27	\$3,270,228	\$2,475,228		Pipeline	795,000			
20	Westmeath	1	200		200	150	0	150	10	\$6,448,500	\$5,215,500	0.13	0.14	0.28	0.32	\$4,836,094	\$3,603,096		Pipeline	1,233,000			
21	Haydon	1	100		100	75	0	75	10	\$3,441,281	\$3,312,281	0.11	0.11	0.26	0.26	\$2,679,802	\$2,584,759		LNG	129,000			
22	Woodville	1	300		300	225	0	225	9	\$5,797,180	\$5,410,180	0.17	0.18	0.41	0.43	\$4,602,262	\$2,912,891		LNG	387,000			
23	South Glengary	1	200		200	150	0	150	10	\$4,590,881	\$4,332,881	0.15	0.15	0.35	0.37	\$3,114,668	\$2,720,475		LNG	258,000			
24	Caledon - Torbram Road	1	79		79	59	0	59	11	\$3,117,191	\$3,015,281	0.10	0.10	0.23	0.23	\$2,512,246	\$2,475,144		LNG	101,910			
25	Chute-a-Blondeau	1	200		200	150	0	150	10	\$5,335,501	\$4,978,981	0.14	0.15	0.33	0.35	\$3,511,703	\$3,048,876		LNG	356,520			
26	Hockley Village, Mono Twp.	1	64		64	48	0	48	13	\$2,950,428	\$2,867,868	0.09	0.09	0.20	0.21	\$2,451,366	\$1,961,093		LNG	82,560			
27	Mauville	1	400		400	300	0	300	10	\$7,147,877	\$6,505,477	0.18	0.19	0.44	0.47	\$4,224,146	\$3,223,306		LNG	542,400			
28	Lanark & Balderson	1	400		400	300	0	300	12	\$8,637,117	\$7,897,677	0.17	0.18	0.40	0.43	\$5,018,218	\$3,880,107		LNG	739,440			
29	Douglas	1	200		200	150	0	150	20	\$5,335,501	\$4,978,981	0.14	0.15	0.33	0.35	\$3,511,703	\$3,048,876		LNG	356,520			
30	Eganville	1	700		700	525	0	525	40	\$14,063,487	\$12,723,267	0.19	0.20	0.43	0.47	\$7,718,759	\$5,574,490		LNG	1,340,220			
31	Kinburn/Fitzroy Harbour	1	500		500	375	0	375	15	\$10,588,874	\$9,664,574	0.18	0.19	0.41	0.44	\$6,051,359	\$4,603,263		LNG	924,300			
32	St. Isidore	1	400		400	300	0	300	10	\$7,147,877	\$6,605,477	0.18	0.19	0.44	0.47	\$4,224,146	\$3,223,306		LNG	542,400			
33	Kirkfield	1	800		800	600	0	600	25	\$15,604,747	\$14,073,067	0.19	0.20	0.44	0.49	\$8,370,140	\$5,880,553		LNG	1,531,680			
34	Minden	1	1,414		1,414	1,061	0	1,061	68	\$26,418,325	\$23,710,533	0.20	0.21	0.46	0.51	\$13,624,673	\$9,111,722		LNG	2,707,791			
35	Coboconk	1	400		400	300	0	300	40	\$8,637,117	\$7,897,677	0.17	0.18	0.40	0.43	\$5,018,218	\$3,880,107		LNG	739,440			
36	Norland	1	200		200	150	0	150	50	\$5,335,501	\$4,978,981	0.14	0.15	0.33	0.35	\$3,511,703	\$3,048,876		LNG	356,520			
37	Barry's Bay	1	500		500	375	0	375	90	\$10,761,872	\$9,804,572	0.17	0.18	0.41	0.44	\$6,212,245	\$4,743,264		LNG	957,300			
38	Kinmount	1	200		200	150	0	150	60	\$5,335,501	\$4,978,981	0.14	0.15	0.33	0.35	\$3,511,703	\$3,048,876		LNG	356,520			
39	Haliburton (Dysert)	1	2,035		2,035	1,526	0	1,526	88	\$37,161,620	\$33,131,594	0.20	0.22	0.47	0.52	\$18,762,625	\$12,052,247		LNG	4,030,026			

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INTERROGATORY #5

Reference: EGD Evidence, page 32, Table 9 and paragraph 95.

- (a) Please provide a table which projects ratepayer impacts for all rate classes assuming all of the potential thirty nine community expansion projects are undertaken.
- (b) In the table produced in response to part (a), please include a column providing the ratepayer impacts for each rate class of;
 - (i) The costs of EGD's low income assistance program included in 2016 rates.
 - (ii) The costs of EGD's DSM programs included in 2016 rates.

RESPONSE

- (a) The tables below indicate the estimated customer impacts and the estimated typical customer annual impact associated with the potential thirty nine community expansion projects over the first ten years of the projects. These tables do not include Rate 1 customers as the impacts on those customers are already provided in Table 9 on page 32.

Unit Rate Impact (cent per m3)												
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. 12
Line	Rate Class	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 10
1	Rate 6	0.0097	0.0191	0.0180	0.0137	0.0082	0.0104	0.0135	0.0228	0.0151	0.0000	0.0000
2	Rate 110	0.0027	0.0054	0.0051	0.0039	0.0023	0.0029	0.0038	0.0064	0.0043	0.0000	0.0000
3	Rate 115	0.0018	0.0036	0.0034	0.0026	0.0016	0.0020	0.0025	0.0043	0.0028	0.0000	0.0000
4	Rate 135	0.0016	0.0031	0.0030	0.0022	0.0013	0.0017	0.0022	0.0037	0.0025	0.0000	0.0000
5	Rate 145	0.0025	0.0049	0.0046	0.0035	0.0021	0.0027	0.0035	0.0058	0.0039	0.0000	0.0000
6	Rate 170	0.0009	0.0018	0.0017	0.0013	0.0008	0.0010	0.0013	0.0021	0.0014	0.0000	0.0000
Typical Customer Annual Impact (\$)												
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
Line	Rate Class	Typical profile (m3)	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
1	Rate 6	22,606	2.19	4.32	4.07	3.10	1.85	2.35	3.05	5.15	3.41	0.00
2	Rate 110	598,568	16.16	32.32	30.53	23.34	13.77	17.36	22.75	38.31	25.74	0.00
3	Rate 115	4,471,609	80.49	160.98	152.03	116.26	71.55	89.43	111.79	192.28	125.21	0.00
4	Rate 135	598,569	9.58	18.56	17.96	13.17	7.78	10.18	13.17	22.15	14.96	0.00
5	Rate 145	339,188	8.48	16.62	15.60	11.87	7.12	9.16	11.87	19.67	13.23	0.00
6	Rate 170	9,976,121	89.79	179.57	169.59	129.69	79.81	99.76	129.69	209.50	139.67	0.00

(b) (i) The table below reflects the customer impacts for Enbridge Gas Distribution's low income assistance program in 2016.

Low Income Assistance Program Impact				
Col. 1	Col. 2	Col. 3	Col. 4	Col. 5
Line	Rate Class	Typical profile (m3)	Low Income Assistance Program (cents per m3)	Typical Customer Annual Impact (\$)
1	Rate 1	2,400	0.1545	3.71
2	Rate 6	22,606	0.0650	14.69
3	Rate 110	598,568	0.0159	95.13
4	Rate 115	4,471,609	0.0120	535.99
5	Rate 135	598,569	0.0131	78.23
6	Rate 145	339,188	0.0787	267.04
7	Rate 170	9,976,121	0.0170	1,695.26

- (ii) The table below reflects the customer impacts for Enbridge Gas Distribution's DSM programs in 2016.

DSM Program Impact				
Col. 1	Col. 2	Col. 3	Col. 4	Col. 5
<u>Line</u>	<u>Rate Class</u>	<u>Typical profile (m3)</u>	<u>DSM Program (cents per m3)</u>	<u>Typical Customer Annual Impact (\$)</u>
1	Rate 1	2,400	0.2525	6.06
2	Rate 6	22,606	0.3338	75.47
3	Rate 110	598,568	0.2155	1,289.62
4	Rate 115	4,471,609	0.2260	10,106.20
5	Rate 135	598,569	0.3905	2,337.24
6	Rate 145	339,188	1.6055	5,445.74
7	Rate 170	9,976,121	0.6156	61,416.95

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INTERROGATORY #6

Reference: Issue 4 (in particular consideration of the value of environmental benefits from gas expansion).

- (a) Has EGD considered how the carbon reduction benefits of gas expansion projects could be monetized to support the economics of the projects?
- (b) Who would “own” the carbon reduction credit arising from community expansion projects?

RESPONSE

- (a) The Company is not aware of any opportunity to monetize the carbon benefits that would stem from these projects in such a way as to support their economics. Currently, the Company has seen no indication that fuel switching of this type will qualify as an offset project. More information is expected later this year around offset regulations.
- (b) It is the Company’s expectation that the carbon benefits associated with the conversion to natural gas from other fuels will flow to those that convert to natural gas through reduced energy costs.

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INTERROGATORY #7

Reference: *Expert Evidence of Adonis Yatchew, Charles River Associates Inc.*, March 21, 2016, on behalf of EPCOR Utilities Inc., paragraph 22.

The evidence cites refers to a successful proposal by Summit Natural Gas of Maine (SNG) to extend gas service to previously unserved areas in that state. The evidence indicates that SNG's business strategy included:

...innovative approaches to pricing including accepting a rate of return that is below industry standards for the initials years of the tariff plan, offering pricing structures that include up-front financial incentives to help defray the costs of converting to natural gas and offering "on bill" loans to help bridge the gap between upfront costs of conversion and eventual savings from switching to a cheaper fuel source.

Please indicate whether EGD has considered any of these mechanisms, or any similar customer incentive mechanisms, to facilitate expansion of its distribution system to unserved communities. If it has, please detail those considerations. If it has not, why not?

RESPONSE

Enbridge has given consideration to these concepts noted above. With respect to reduced rate of return on investment the Company does not support this concept given that the Ontario Energy Board has already determined the reasonable return for the Company that enables it to raise sufficient capital and maintain its financial integrity. With respect to the potential offering of preferential pricing structures or up-front financial incentives to help defray the costs of converting to natural gas, Enbridge does not view this as necessary given the significant energy cost saving provided by natural gas. Lastly, Enbridge does currently offer a form of on-bill financing that those served by community expansion projects will have the option of using to spread conversion costs over an extended period of time through a large number of heating and water heating contractors that offer this billing and payment option.

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INTERROGATORY #8

Reference: *Comments on Economic Issues Raised in EB-2016-0004*, filed on behalf of Parkland Fuel, paragraph 1.8.

In their evidence, Mr. Dasgupta and Dr. Nieberding discuss the load forecast risk associated with gas system expansions.

- (a) Is EGD willing to assume the load forecast risk associated with its expansion program?
- (b) If not, how does EGD propose to allocate that risk?

RESPONSE

- a) Please see the Company's response to BOMA interrogatory #13 at Exhibit S3.EGDI.BOMA.13.
- b) Please see the Company's response to BOMA interrogatory #13.