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

INTERROGATORY #1

General

Ref: Page 8/36, Paragraph 29, Rate Rider

Has Enbridge considered any options for existing customers other than a rate rider, which will attract payment of HST in addition to the rate rider itself, thereby adding an additional 13% to costs associated with the rate rider? If so, please file the results of the analysis. If not, why not? Over the timeframe estimated for the collection of the rate rider from existing customers what will be the total provincial share of the HST revenue?

RESPONSE

The Company's proposal does not provide for a rate rider applicable to existing customers in respect of community expansion projects. Enbridge has considered one time capital contributions in aid of construction and the prospect of a rate specific to defined community expansion projects as means of improving the economics of community expansion projects. In both cases the application of HST would continue to apply. The Company has not calculated the estimated value of HST applicable to the System Expansion Surcharge included in its EB-2016-0004 community expansion proposal. Under the Company's proposal, given the price advantage of natural gas over competing fuels, a customer served by a community expansion project ends up with a lower overall cost of energy and consequently the customer will pay less HST in total compared to the tax that would have been applicable to the cost of the customer's prior energy supply.

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

INTERROGATORY #2

General

Ref: Page 12/36, Paragraph 36

With respect to the ICF study for the Canadian Gas Association, why does Enbridge assume the results for Canada as whole can be assumed to apply to Ontario, given that Ontario's electricity system has been significantly decarbonized already?

RESPONSE

Please see Exhibits 8, 9, 11, 13, 15, 16, 21, 23, 24, 27, 28 of the ICF Study prepared by ICF International on behalf of the Canadian Gas Association (Reference EB-2015-0179, Exhibit B.CCC.5 Attachment 1). These exhibits (tables) report, by province, including the Province of Ontario, the following: the estimated distributor expenditures, number of customers, annual gas consumption, annual fuel cost savings, customer expenditures for new natural gas equipment, net present value of total net savings for new customers, net annual GHG reductions, low CO_2 emission price – average annual fuel savings per customer, high CO_2 emission price – average annual fuel savings per customer, low CO_2 emission price – NPV of fuel conversion from customer perspective, high CO2 emission price – NPV of fuel conversion from customer perspective. Based on this material the Company believes that much of the information reported in this study is applicable to Ontario.

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

INTERROGATORY #3

General

Ref: Page 20/36, Paragraph 58

With respect to the average rate impacts being limited to $2.00 per month, BOMA Toronto assumes that this amount is the average for a residential or general service customer. What is the estimate of the total rate impact for Enbridge other customer classes, by rate class per month and for the lifetime of the community expansion projects included in Enbridge's submission?

RESPONSE

The reference at paragraph 58 is to an existing typical residential customer.

Please see the response to IGUA Interrogatory #5 at Exhibit S3.EGDI.IGUA.5, part (a) for estimated impacts on other customers.

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

INTERROGATORY #4

General

Ref: 12.EGD.1

(a) Does EGD agree that in the Ontario 2016 budget, while the $200 million CEP loan program, introduced in the 2015 budget is reaffirmed, there is no reference to the $30 million grant program?

(b) It appears from the 2016 budget that the Province has dropped the grant program. What is EGD's view?

(c) In EGD's view, why has the province not yet developed criteria for the loan/grant program, given that the program was announced in the 2015 budget, and was referred to in the 2013 LTEP?

(d) When does EGD anticipate the provincial program will become operational?

(e) What is EGD's view as to how the loan program will fit into the CEP program? What will the loan program's features be if it is to contribute to a successful CEP?

(f) Please provide details of any conversations or written exchanges between EGD and the provincial government on the CEP program since the 2015 budget announcement, including copies of any emails.

RESPONSE

(a) The Company accepts that there is no reference to grant funding in support of gas distribution system expansion in the Province's 2016 Budget. However, the Company does not necessarily agree that the previously announced grant program will not be implemented. The Province's 2016 Budget stated

> The Province is also developing programs to help communities partner with utilities to extend access to natural gas supplies. Ontario will introduce a loan program to support access to natural gas in 2016. Access to natural gas can help stimulate the economy, particularly in smaller communities, by attracting new industry, making commercial

> transportation more affordable, benefiting agricultural producers and providing consumers with more energy choices. (Ref. 2016 Ontario Budget, Budget Papers, page 63)

(b) Please see the Company's response to part (a) of this question.

(c) Enbridge does not know why the Province has not yet made available the details of its loan and grant program.

(d) Enbridge anticipates that the details of the loan and grant program will be announced sometime after the Board renders a decision in this proceeding.

(e) Enbridge is not aware of any details with respect to how the anticipated loan and grant program will work at this time.

(f) Any communications between the Company and the Province concerning the loan and grant program have been general in nature. The Company is not aware of any details of the plans the Province may currently have with respect to the loan and grant program.

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

INTERROGATORY #5

General

Ref: Page 2

EGD defines a Small Main Extension Project as "all other forms of distribution expansion which produce first time natural gas system access to customer".

(a) Please provide more detailed explanation, especially of the phrase "natural gas system access".

(b) Does this definition include service laterals from existing mains? Please explain.

(c) How many customers must gain access to gas to qualify as a small main extension?

(d) How are "Small Mains" defined in the context? Please provide examples to illustrate the dividing line between small main and services, and between small mains, medium mains, and large mains, including, inter alia, pressures and pipe diameters and any other differentiating characteristics.

RESPONSE

(a) By extending a gas main to or beyond a property where none existed before the Company believes that it would be providing "natural gas system access".

(b) No, as explained in the answer to part (a) of this interrogatory.

(c) There is no minimum number of potential customers required to meet the definition of a Small Main Extension.

(d) A Service is a pipe that runs from a gas main to the premises of a customer, generally terminating at the gas meter. A Main extension is the extension of a Gas Main that typically is located in or adjacent to a road allowance. A Gas Main or Main Extension can be of any pipe size or pressure contingent on the number and size of the customers that it serves.

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

INTERROGATORY #6

General

Ref: Page 5, Paragraph 6

How should those new customer contributions, by way of monthly payments, be treated for ratemaking purposes? Please explain fully. Would the payments over the plan term be discounted and used to reduce rate base in year one, or would they be deducted from rate base in the year in which they were made?

RESPONSE

As outlined in the Company's evidence Enbridge proposes that the System Expansion Surcharge ("SES") be treated as part of general revenue which to an extent would reduce the portion of the Company's revenue requirement contributed by existing customers.

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

INTERROGATORY #7

General

Ref: Page 6, Paragraph 4(b)

What annual normalized reinforcement has EGD included in its calculation of the capital costs for its proposed expansion? How are the amounts of these cost forecasts derived? What have actual reinforcement costs been in each of the last three years?

RESPONSE

Enbridge Gas Distribution estimated a normalized reinforcement cost of $407 per customer based on a 2016 indirect cost study. This value was used in the feasibility assessment of community expansion projects. Normalized reinforcement costs are derived based on the methodology described in EBO 188 section 2.3.7. Please see below the actual reinforcement costs during the last 3 years.

2013	2014	2015
$73,908,605	$11,142,891	$4,771,022

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

INTERROGATORY #8

General

Ref: Page 6, Issue #4(a)

Why, in EGD's view, is it fair to ask existing EGD customers to subsidize the expansion of service to new communities through projects that have a P/I lower than 0.8%, which is already a subsidy? Why should this not be a role for the government of Ontario, through its recently announced program?

RESPONSE

The EBO 188 guideline requiring individual system expansion projects to achieve a PI of at least 0.8 only provides for cross subsidization within the group of projects undertaken during a rolling twelve month period since the Rolling Project Portfolio must maintain a PI of 1.0 or greater. Further, the EBO 188 Guidelines do not provide for existing customers to subsidize new customers in the long term since the Company also needs to maintain an Investment Portfolio PI greater than 1.0. The Company believes that limited subsidization from existing to new customers in community expansion projects is in the overall best interest of the Province in that the economic benefit to these communities will outweigh the burden borne by its existing customers. The Company is supportive of the pending Provincial government's loan and grant program that will be designed to support the extension of gas distribution services to currently unserved areas of the Province. Further assistance from the Province would be welcome. Beyond this the Company has no comment on what the role of government might be with respect to how it might fund gas distribution system expansion to currently un-served communities.

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

INTERROGATORY #9

General

Ref: General

In its 2016 budget, the Ontario government states:

> "The Province is also developing programs to help communities partner with utilities to extend access to natural gas supplies. Ontario will introduce a loan program to support access to natural gas in 2016. Access to natural gas can help stimulate the economy, particularly in smaller communities, by attracting new industry, making commercial transportation more affordable, benefiting agricultural producers and providing consumers with more energy choices" (p63).

(a) Given that the province, in its 2016 budget, at page 63, appears to have dropped the grant component of the rural gas expansion program, announced in its 2015 budget, and given that the province has in more than a year later not developed any criteria for the loan or grant parts of its policy, would EGD agree with BOMA that the province no longer has a "policy" of facilitating gas service for unserved communities in Ontario? If EGD disagrees, please explain what that policy is either than a preference that existing gas customers subsidize the uneconomic expansion to unserved areas.

(b) In EGD's view, does the OEB have the authority to order the gas utilities to pursue uneconomic expansion to unserved parts of the province?

RESPONSE

a) Enbridge does not agree with BOMA that the province no longer has a “policy” of facilitating gas service for unserved communities in Ontario. Please see response to BOMA Interrogatory #4 at Exhibit S3.EGDI.BOMA.4.

b) No. Enbridge does not agree that the Ontario Energy Board has the authority to order gas utilities to pursue uneconomic expansion to unserved parts of the province. The current EBO 188 guidelines, while they allow for uneconomic expansion (as currently defined by the guidelines), set the parameters under which a utility may apply to recover the costs to serve a new community. They do not provide the Board with the means to order a utility to provide service to an unserved community.

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

INTERROGATORY #10

General

Ref: Page 7 of 36

The stage 2 benefits referred to in the EBO 134 Guidelines are for gas transmission projects. It is generally agreed that without such a construct, there would be no major transmission reinforcements possible. However, for distribution expansions to connect additional communities, EBO 188 is a well-developed test, which EGD supports. Why is EGD purporting to use the EBO 134 Guidelines for distribution expansion? Why is it appropriate to use these tests in a project-specific assessment of distribution expansion projects. Does EGD agree that using these second stage benefits could be used to justify any expansion to unserved communities in the province, no matter how remote the communities are from existing gas infrastructure.

RESPONSE

This interrogatory appears to include three questions.

1) *Why is EGD purporting to use the EBO 134 Guidelines for distribution expansion?*

   The following quote is from the letter issued by the Ontario Energy Board on February 18, 2015 wherein it invited parties to submit proposals to extend gas services to unserved communities. (Ref. EB-2016-0004, Evidence of Enbridge, Appendix A)

   > To the extent that the economics of a proposed project may not be accommodated within the current regulatory construct, the Board invites proponents to identify, within their applications, any options to address such regulatory issues. The Board will consider any such options as part of its adjudicative process.

   It is the view of Enbridge that the "current regulatory construct" as it applies to system expansion projects is largely defined by the Board's EBO 134 and EBO 188 Reports, as such the Company believes it reasonable to take the provisions of both of these documents into consideration in the development of community expansion proposals in response to the letter of the Board dated February 18, 2015 which seek to address the economic constraints upon which the current regulatory construct is based.

2) *Why is it appropriate to use these tests in a project-specific assessment of distribution expansion projects?*

Please see the Company's response to the first part of this interrogatory.

3) *Does EGD agree that using these second stage benefits could be used to justify any expansion to unserved communities in the province, no matter how remote the communities are from existing gas infrastructure?*

No, the Company expects that any project to expand gas services to remote unserved communities would be the subject of a Leave to Construct Application brought before the Board wherein the Board would have the opportunity to consider the reasonableness of the proposed project and rule accordingly.

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

INTERROGATORY #11

General

Ref: Page 7, Paragraph 25

(a) What percentage of customers in each unserved community would likely attach after the initial ten year attachment forecast horizon? Please support this answer with data from other EGD's experiences, and identify the expansion projects relied upon.

(b) Please quantify the incremental revenue that would be generated by the customers referred to in (a) above, and the "economics of sale" achieved by the company due to the project in the thirty-nine communities, both in absolute terms and percentage of EGD's revenue requirement. Please discuss thoroughly, and specify what unit costs would be reduced because of economics of scale, and by how much.

RESPONSE

(a) The attachment forecast beyond ten years for 39 communities has not been quantified by Enbridge.

(b) Please see the response to a) above.

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

INTERROGATORY #12

General

Ref: General

Does EGD agree with Union that the Community Energy Project is not a Z-factor?

RESPONSE

Enbridge believes that it would not be appropriate to render an opinion with respect to the interpretation of the incentive rate regime under which Union Gas operates. With respect to Enbridge and its current incentive rate model the Company is of the view that the costs associated with potential community expansion projects that were not provided for in the Company's custom incentive rate model should be treated as Y-Factors. For further information related to this question please see the response to Board Staff Interrogatory #7 at Exhibit S3.EGDI.BSTAFF.7.

Z-Factor treatment for these projects would not be appropriate as Enbridge was expecting to come forward to the Board with a community expansion proposal during the course of the IRM proceeding. Further, in providing its proposal to the Board, Enbridge has taken action to meet requests from the Ministry of Economic Development, Employment and Infrastructure and the Ontario Energy Board with respect to providing natural gas service to currently unserved communities.

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

INTERROGATORY #13

General

Ref: Page 9, Paragraph 31

(a) Will the ratepayers' funds paid in rates, in the event the costs for particular projects were less than forecast, be returned to ratepayers? How would this happen?

(b) Please confirm that under the Y-factor treatment proposed by EGD for the $410 million CEP capital costs, existing utility ratepayers would be responsible for the payment of any cost overruns relative to forecasts of the capital costs on the community expansion projects and the incremental rate base and revenue requirements that would result. If so, please explain in what circumstances utility ratepayers would not be responsible.

(c) EGD has stated that it should not be at risk for the expansion program. Why should EGD shareholders be held harmless from liability for any cost overruns and against any other risks which materialize in the expansion programs, when they will be a major beneficiary of the program?

RESPONSE

a) Under the Company’s proposal the actual costs of any community expansion project would be closed to rate base. The Company’s revenue requirement and rates would be based on this actual value; as such there would not be any amount payable to ratepayers to be returned to them.

b) Under the Company’s proposal the actual costs of any community expansion project would be closed to rate base. The Company’s revenue requirement and rates would be based on this actual value. If cost overruns relative to the forecast capital costs of the community expansion projects were to be incurred, such costs would be recoverable in rates provided that they were prudently incurred.

(c) Enbridge does not believe that it should be at any greater risk with respect to the recovery of costs associated with community expansion projects than it would be for any project undertaken by the Company.

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

INTERROGATORY #14

General

Ref: Page 9

Please provide a timetable for the implementation of the first few projects in the event the Board were to approve the proposed program on terms acceptable to EGD by September 2016. Please identify which projects, from EGD's list of projects, would proceed first and why, and the implementation timetable for each such project. Over what period of time would EGD propose to construct the remaining projects?

RESPONSE

Although no specific plan is in place at this time, provided that the Board were to approve Enbridge's proposed program as presented by September 2016 the Company's first three projects would most likely be Fenelon Falls, Bobcaygeon and Scugog Island. The main reasons for acting on these projects first are because they have relatively favourable economics compared to other potential projects listed and because the Company has completed more preparatory work with respect to these projects. For further information please see the Company's response to BOMA Interrogatory #31 at Exhibit S3.EGDI.BOMA.31.

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

INTERROGATORY #15

General

Ref: Page 10, Paragraph 33

Is it EGD's view that the new entrants should demonstrate their qualifications to run a gas distribution business in this proceeding or in some future proceeding, for example, a leave to construct hearing? Please explain fully. Is it EGD's view that a party seeking to distribute gas to an unserved area in Ontario must already be in the gas distribution business in another jurisdiction, and if so, why? Please explain fully.

RESPONSE

First, as noted above, Enbridge believes that any party seeking to become a gas distributor in the Province of Ontario should be qualified in terms of their technical and operational competence and financial wherewithal. Enbridge is in general agreement with the qualifications that should be considered by the Board in evaluating new potential gas distributors articulated by Union Gas at pages 28 to 30 of its evidence in this proceeding.

With respect to the second question posed in this interrogatory, Enbridge does not necessarily agree that a party seeking to distribute gas to unserved areas of Ontario must already be in the gas distribution business.

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

INTERROGATORY #16

General

Ref: Issue 10, Page 11, Paragraph 43

Please explain how the typical residential electricity user will see a monthly saving of $2.00 per month due to the implementation of cap and trade.

RESPONSE

Enbridge's source for the estimate of a $2.00 per month saving for the typical Ontario residential electricity user under the Province's proposed Cap and Trade carbon pricing program was the 2016 Ontario Budget, Budget Papers (page 63).

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

INTERROGATORY #17

General

Ref: Issue 10, Page 11, Paragraph 43

Given the announced provincial cap and trade policy, why would EGD include residential customers now using electricity to be part of a group eligible for conversion to natural gas?

RESPONSE

Please see the Company's responses to FRPO Interrogatory #6 at Exhibit S3.EGDI.FRPO.6, OGA Interrogatory #4 at Exhibit S3.EGDI.OGA.4 and OSEA Interrogatory #3(b) at Exhibit S3.EGDI.OSEA.3(b).

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

INTERROGATORY #18

General

Ref: Page 11, Paragraph 35

Please describe in detail EGD's efforts over the last several years to advance fuel switching to natural gas in the Transportation Sector.

RESPONSE

Enbridge has engaged in a number of activities to advance fuel switching in the transportation sector including the following:

- Participation in NGV education & outreach events.
- Participation in the development of national NGV training materials.
- Participation in CSA standards development.
    - CSA B108 Natural Gas Fueling Stations Installation Code.
    - CSA B109 Natural Gas for Vehicles Installation Code.
    - CSA Z276 LNG Production, Storage and Handling.
- Participation in regulation development.
    - O. Reg 219/01 (Operating Engineer regulation).
    - Proposed Ontario LNG regulation.
- Support for NGV related research and development.
- Support for the installation of seven in-franchise CNG refuse truck refueling stations, one rail yard CNG shunt truck refueling station, and one private refueling station for CNG long-haul trucks.
- Support for the installation of over one hundred Vehicle Refueling Appliances (VRAs) for ice-cleaning (e.g., Zamboni & Olympia machines), forklift and other applications.
- Participation in an Ontario coalition of natural gas utilities, heavy-duty truckers and other stakeholders to lobby the Provincial government for funding (proceeds from cap and trade) to be used to build out NGV refueling infrastructure and incent vehicle purchases as a means of reducing GHG emissions from the transportation sector.

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.

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

INTERROGATORY #21

General

Ref: Page 15, Paragraph 48

Please explain the meaning of "non-exhaustive list of these communities". What other communities are on EGD's list for future expansion, as part of its proposed program?

RESPONSE

The term "non-exhaustive list of these communities" means there may be other communities or areas not yet considered by Enbridge that could constitute community expansion projects or short main extensions as defined in the Company's proposal in this proceeding. The Company is aware of some of these communities but they are not currently on Enbridge's list of future expansion opportunities.

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

INTERROGATORY #22

General

Ref: Page 17, Paragraph 51

(a) Please provide a description of the terrain, the number of river crossings, temperature, and distance for each of EGD's forty proposed expansion proposals. Which of the forty projects would EGD characterize as being across "difficult terrain"?

(b) Please provide a comparison of the average distance between an existing main and the twenty-nine and forty communities proposed in the Union and EGD expansions.

(c) Please describe the characteristics of "easy" versus "difficult" terrain with respect to the proposed expansion.

RESPONSE

(a) The Company has not completed detailed assessments of the terrain and the number of river crossings for each of 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. With respect to the term "difficult terrain" the main geographic features of concern are the extent and nature of rock, number and size of river and road crossings, and the number and extent of environmentally sensitive areas that are encountered in the construction of facilities required to serve these communities.

(b) The average distance between an existing main and the thirty-nine community expansion projects listed in the Company's evidence is 20 kilometers. The average distance between an existing main and the five community expansion projects that Union Gas sought the Board's approval for the construction of

facilities to in its EB-2015-0179 application is 7.4 kilometers.
(Ref. EB-2015-0179, Exhibit A, Tab 1, Appendix D, pages 1 to 3)

(c) In Enbridge’s view “Easy" terrain would typically include areas to be traversed along existing roadways with;

- little or no rock,
- few or no significant other geographic features such as ravines,
- few or no river, road, railway or other major infrastructure crossings,
- few or no environmentally sensitive areas, and
- opportunities to construct in pre-disturbed soils in existing right of ways.

“Difficult” terrain would typically be characterized by having one or more of the following features;

- significant rock,
- significant other geographic features such as ravines,
- numerous river, road, railway or other major infrastructure crossings,
- little or no opportunity to construct in pre-disturbed soil, and
- numerous environmentally sensitive areas.

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

INTERROGATORY #23

General

Ref: Page 17, Paragraph 50

Please provide the threshold percentage of transmission main costs relative to total project costs that triggered the examination of LNG as a more economically attractive solution.

RESPONSE

The identification of certain communities potentially being provided natural gas service with an LNG solution was based on the ratepayer subsidy analysis provided in Table 6 at Exhibit R3, page 29, Table 6. A threshold percentage of transmission main costs relative to total project costs was not used for selecting LNG communities.

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

INTERROGATORY #24

General

Ref: Page 17, Paragraph 52

(a) Please explain in detail why none of EGD's thirty-nine potential projects would achieve Project Profitability greater than or equal to 0.4 test used under Union's proposal even after the new customer contributions and municipal contributions. Please deal with each of the thirty-nine projects.

(b) (i) How many of the thirty-nine projects are for municipalities in which EGD already has a Franchise Agreement? If there are some, for how long as EGD had each such franchise agreement?

(ii) Does Union also have a Franchise Agreement with any of them?

(iii) Are any of the thirty-nine projects closer to Union's infrastructure than to EGD's infrastructure? Which ones, and what is the difference in distance?

(iv) In how many of the thirty-nine municipalities has EGD obtained Certificates of Public Convenience and Necessity? When was each of the Certificates obtained?

RESPONSE

a) There are many factors to consider in order to understand why none of Enbridge Gas Distribution’s projects achieved a PI of 0.4 under Union’s proposals. Besides different capital structure and margin rates, Enbridge Gas Distribution’s costs for these projects are higher due to long distances from existing mains, difficult terrain and contingency amounts that have been included in project cost estimates.

b) For the Company’s responses to parts (i) and (iv), please see the following table. With respect to parts (ii) and (iii) of this question, Enbridge does not possess detailed information concerning the franchise agreements of Union Gas and is unable to provide the requested information. With respect to the proximity of the thirty-nine community expansion projects being considered by Enbridge, the Company does not possess detailed information related to the infrastructure of Union Gas and therefore cannot provide the information requested.

Communities Currently Under Consideration by Enbridge Gas Distribution Inc. Franchise Status Summary

Col.	Potential Community	Current Franchise with:	Date of 1st Franchise Agreement	CPCN Date
1	Fenelon Falls and Bobcaygeon	Kawartha Lakes – limited to only - Emily - Manvers - Lindsay - Mariposa - Omemee - Ops	- Oct. 13, 1998 - April 7, 1958 - June 20, 1957 - July 17, 2000 - Oct. 10, 1957 - October 5, 1957	- September 1, 1998 - May 12, 1958 - Sept. 11, 1957 - July 14, 2000 - January 2, 1958 - December 23, 1957
2	Scugog Island	Scugog	April 23, 2001	July 14, 2000
3	Cambray	Kawartha Lakes – see above		
4	Zephyr	Uxbridge	October 14, 1957	December 23, 1957
5	Cotnam Island	Laurentian Valley – no franchise	n/a	n/a
6	Sarsfield	Ottawa	July 7, 1958	July 25, 1967
7	Udora	Georgina	July 2, 1957	December 23, 1957
8	Wilkinson Sub, Innisfil	Innisfil	May 4, 1966	August 11, 1966
9	Marsville	East Garafraxa	February 17, 2009	September 2, 1997
10	Mansfield -	No franchise	n/a	n/a
11	Glendale subdivision	South Glengarry – from Charlottenburgh and Lancaster amalgamation	Charlottenburgh – March 5, 1958 Lancaster – January 14, 1958	Charlottenburgh – March 17, 1958 Lancaster – February 10, 1958
12	Caledon – Humber Station	Caledon	Oct. 3, 1955	August 9, 1955
13	Enniskillen	No franchise	n/a	n/a
14	Village of Lisle	Adjala-Tosorontio	July 22, 1996	July 9, 1996
15	5th Line, Mono	Mono	Nov. 2, 1963	January 8, 1964
16	Sandford	Uxbridge	October 14, 1957	December 23, 1957

17	Leaskdale	Uxbridge	October 14, 1957	December 23, 1957
18	Curran	North Plantagenet – now Alfred and Plantagenet	October 30, 1957	February 10, 1958
19	Bainsville	South Glengarry		
20	Westmeath	now Whitewater Region	October 5, 1957	January 23, 1958
21	Haydon	now Newcastle – no franchise	n/a	n/a
22	Woodville	Under Kawartha Lakes – see above		
23	South Glengarry	South Glengarry	November 1, 1957	March 17, 1958
24	Caledon – Torbram Road	Caledon	October 3, 1955	August 9, 1955
25	Chute-a-Blondeau	East Hawkesbury – no franchise	n/a	n/a
26	Hockley Village, Mono Twp	Mono	November 2, 1963	January 8, 1964
27	Maxville	now North Glengarry	October 16, 1957	January 23, 1958
28	Lanark and Balderson	Lanark County – only	March 25, 1981	
29	Douglas	Admaston-Bromley (amalgamated January 1, 2000)	April 6 and February 27, 1959	June 10 and July 16, 1959
30	Eganville	Bonne Chere Valley - no franchise	n/a	n/a
31	Kinburn/Fitzroy Harbour	West Carleton – no franchise	n/a	n/a
32	St. Isidore	The Nation - no franchise	n/a	n/a
33	Kirkfield	Kawartha Lakes – see above		
34	Minden	Minden Hills – no franchise	n/a	n/a
35	Coboconk	Kawartha Lakes – see above		
36	Norland	Kawartha Lakes – see above		
37	Barry's Bay	Madawaska Valley – no franchise	n/a	n/a

38	Kinmount	Apportioned by three municipalities, they are City of Kawartha Lakes (see above), Minden Hills (no franchise) and Trent Lakes (no franchise)	n/a	n/a
39	Haliburton	No franchise	n/a	n/a

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 BOMA

INTERROGATORY #27

General

Ref: Page 21, Paragraph 59

What is EGD's forecast of Small Main Expansion revenue that would accrue from the Small Main Expansion program over the period of the Community Expansion Program? How would that forecast revenue compare with the revenue collected under current rules? Under current rules, what are the costs of Small Main Expansion projects over each of the last five years? Has each project been done at P/I of between 0.8 and 1.0? Please discuss fully.

RESPONSE

Enbridge does not have a forecast of the Small Main Expansion revenue that would accrue from the Small Main Expansion program over the period of the Community Expansion Program.

The table below provides the cost of Small Main Expansion projects over the last five years.

Year	**Actual Cost (Thousands) Small Main Expansion Projects**
2011	$ 25,837
2012	$ 17,254
2013	$ 22,113
2014	$ 17,588
2015	$ 15,461

These projects have been done at PI between 0.8 and 1.0.

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

INTERROGATORY #28

General

Ref: Page 21, Paragraph 59

What is the amount of cross-subsidization, both in dollar terms and in terms of percentage of total expansion cost over the first ten years of the program, and of the incremental revenue requirement for the thirty-nine projects, from the existing customers, on the assumption that a new portfolio is established for the thirty-nine new projects, with the requirement that the "portfolio rolling P/I" will be maintained at 0.5 for the first ten years of the program. Please confirm that the new portfolio will be in the regulated part of EGD and any shortfall in revenue for that portfolio compared to a portfolio with a profitability of 1.0 will be covered by the existing customers.

RESPONSE

Please see table below for the requested cross-subsidization analysis.

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
	($million)	($million)	($million)	($million)	($million)	($million)	($million)	($million)	($million)	($million)
Capital Investment	54	58	56	44	31	46	52	118	1	1
Cumulative Capital Invesment	54	112	168	212	243	289	341	458	460	461
Incremental Revenue requirement	2.41	7.35	12.34	16.69	19.91	23.18	27.35	34.70	39.73	39.50
- Less: revenue from new customers	0.80	2.58	4.58	6.66	8.52	10.07	12.00	15.57	18.11	18.35
Revenue defficiency (cross-subsidization)	1.61	4.77	7.76	10.03	11.39	13.12	15.36	19.13	21.62	21.15
Cross-subsidy as % of investment	3%	4%	5%	5%	5%	5%	5%	4%	5%	5%
Cross-subsidy as % of Incremental Revenue Requirement	67%	65%	63%	60%	57%	57%	56%	55%	54%	54%

Enbridge confirms that the Community Expansion Portfolio will form part of regulated operations. Like any other project and pursuant to Enbridge's community expansion proposal any short-term revenue shortfall resulting from the Community Expansion Portfolio will be recovered from existing ratepayers.

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

INTERROGATORY #29

General

Ref: Page 23, Paragraph 69

What is the weighted (by dollar amount) average profitability ratio of the thirty-nine proposed community expansion projects.

RESPONSE

The collective PI of all 39 projects is 0.55.

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

INTERROGATORY #30

General

Ref: Page 23, Paragraph 69

(a) Please explain the difference in quantitative terms of "focusing attention on the overall impact on all ratepayers as opposed to targeting the economic feasibility test of specific projects". Is the overall negative impact on existing ratepayers (at the time the expansion is being proposed) not simply the sum of losses incurred on each of the new projects weighted by the dollar amounts of the projects? Please explain fully.

(b) Why does a separate rolling project portfolio managed to a minimum P/I of 0.5 require less subsidy from existing ratepayers than requiring each individual new community expansion project to have P/I of at least 0.5? If not, please explain the difference between the two approaches.

(c) Please provide a copy of EGD's distribution system expansion guidelines or its equivalent.

RESPONSE

(a) In its evidence Enbridge suggests that in terms of weighing the overall benefit of extending the Ontario gas distribution system to unserved communities it is much more informative to give consideration to the benefits this activity will provide to customers in these communities and in general against the burden these projects may impose on existing gas customers. In numeric terms the Company's evidence shows that the Stage 2 benefit of its proposal is estimated to be $221 million compared to a maximum rate impact per customer of $10.39 per year. The Company believes that this is a much more appropriate way to view its proposal than simply stating that the proposed Community Expansion Portfolio is expected to have a PI of 0.55.

(b) All else equal, a separate rolling project portfolio managed to a minimum P/I of 0.5 require should require the same degree of subsidy from existing customers compared to each individual new community expansion project having a Project PI of 0.5. The issue would be that based on the Company's evidence only two of the referenced thirty-nine projects could go forward if they each needed to achieve a minimum Project PI 0.5. Such a constraint would not enable the Company to make much progress toward the Province's goal of *"ensuring that Ontario consumers in communities that currently do not have access to natural gas are able to share in affordable supplies of natural gas."* as stated in the Board's letter of February 18, 2015.

(c) Please refer to Exhibit B1, Tab 2, Schedule 1 of EB-2012-0459, Filed: 2013-06-28

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

INTERROGATORY #31

General

Ref: Page 24, Paragraph 72

BOMA wishes to know the feasibility of the proposed implementation schedule. Please indicate which of the thirty-nine proposed projects would be completed in each year of the first five years and the total capex for the projects in each of those five years. Please state which two projects will be completed in year one and the total capex. Please explain the scheduling for the two year one projects, assuming a Board approval in September 2016, and for each subsequent group of projects in years two through seven.

RESPONSE

Please see the list of the projects below which includes the estimated capital cost and year of construction for each. For more detail on the timing of projects in the first two years please see the Company's response to BOMA Interrogatory #14 at Exhibit S3.EGDI.BOMA.14.

			Forecast Customers			
	Community	In service year	Conversions	New	Total	Total Investement
	Col 1	Col 2	Col 6	Col 7	Col 8	Col 23
1	Fenelon Falls & Bobcaygeon	Year 1	2,272	3,213	5,485	111,956,990
2	Scugog Island	year 1	883	291	1,174	19,714,126
3	Cambray	year 2	300	-	300	7,583,140
4	Zephyr	year 2	188	-	188	5,184,375
5	Cotnam Island	year 2	75	-	75	2,171,890
6	Sarsfield	year 2	150	-	150	4,147,500
7	Udora	year 2	300	-	300	8,842,300
8	Wilkinson Sub, Innisfil	year 3	68	-	68	1,897,055
9	Town of Marsville	year 3	263	-	263	8,047,225
10	Town of Mansfield	year 3	221	-	221	6,817,129
11	Glendale Subdivision	year 3	75	-	75	2,509,250
12	Caledon - Humber Station	year 3	54	-	54	2,067,960
13	Enniskillen	year 4	150	-	150	5,109,500
14	Village of Lisle	year 4	300	-	300	9,966,800
15	5th Line, Mono Twp.	year 4	24	-	24	1,798,760
16	Sandford	year 4	150	-	150	5,590,500
17	Leasksdale	year 4	150	-	150	5,590,500
18	Curran	year 5	75	-	75	3,640,250
19	Bainsville	year 5	75	-	75	3,997,750
20	Westmeath	year 5	150	-	150	6,448,500
21	Haydon	year 5	75	-	75	3,441,281
22	Woodville	year 5	225	-	225	5,797,180
			6,221	3,504	9,725	232,319,960

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

INTERROGATORY #32

General

Ref: Table 7

Please provide an extension of Table 7 for ten years beyond year eight.

RESPONSE

Enbridge's evidence at R3, Page 24, Paragraph 72 outlines the assumptions underpinning Table 7. Further, the Company's response at S3.EGDI.BOMA.21 indicates that no other community expansion projects have been identified at this point in time. Consequently, the Company cannot project Table 7 for ten years beyond year eight.

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

INTERROGATORY #33

General

Ref: Page 30

(a) Please provide a revised Table 7, with the ten projects with the lowest P/I excluded from the program.

(b) Please provide a revised Table 7, with the twenty projects with the lowest P/I were excluded.

(c) Please provide a revised Table 7 assuming a fifteen percent cost overrun across all projects.

RESPONSE

a) Please see the revised Table 7 after removing ten projects with the lowest PI.

Typical RPP	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
(Recent 3 years' average)	($million)	($million)	($million)	($million)	($million)	($million)	($million)	($million)
Inflow	111	111	111	111	111	111	111	111
Outflow	(71)	(71)	(71)	(71)	(71)	(71)	(71)	(71)
NPV	40	40	40	40	40	40	40	40
PI	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56
Cash Flow of 39 Projects								
Inflow	91	15	9	7	3	24	9	59
Outflow	(154)	(34)	(20)	(15)	(6)	(47)	(19)	(115)
NPV	(63)	(19)	(11)	(8)	(3)	(23)	(10)	(56)
PI	0.59	0.44	0.46	0.45	0.55	0.50	0.47	0.52
Impact on RPP								
Inflow	202	126	120	118	114	135	120	170
Outflow	(225)	(105)	(91)	(86)	(77)	(118)	(90)	(186)
NPV	(23)	21	29	32	37	17	30	(16)
PI	0.90	1.20	1.32	1.37	1.49	1.14	1.34	0.92

b) Please see the revised Table 7 after removing twenty projects with the lowest PI.

Typical RPP	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
(Recent 3 years' average)	($million)	($million)	($million)	($million)	($million)	($million)	($million)	($million)
Inflow	111	111	111	111	111	111	111	111
Outflow	(71)	(71)	(71)	(71)	(71)	(71)	(71)	(71)
NPV	40	40	40	40	40	40	40	40
PI	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56
Cash Flow of 40 Projects								
Inflow	91	15	4		3	17	9	55
Outflow	(154)	(34)	(8)		(6)	(32)	(19)	(105)
NPV	(63)	(19)	(4)		(3)	(15)	(10)	(50)
PI	0.59	0.44	0.48		0.55	0.53	0.47	0.53
Impact on RPP								
Inflow	202	126	115	111	114	128	120	166
Outflow	(225)	(105)	(79)	(71)	(77)	(103)	(90)	(176)
NPV	(23)	21	36	40	37	25	30	(10)
PI	0.90	1.20	1.45	1.56	1.49	1.25	1.34	0.95

c) Please see the revised Table 7 assuming a 15% cost overrun across all projects.

Typical RPP	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
(Recent 3 years' average)	($million)	($million)	($million)	($million)	($million)	($million)	($million)	($million)
Inflow	111	111	111	111	111	111	111	111
Outflow	(71)	(71)	(71)	(71)	(71)	(71)	(71)	(71)
NPV	40	40	40	40	40	40	40	40
PI	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56
Cash Flow of 39 Projects								
Inflow	94	16	10	12	10	13	25	61
Outflow	(177)	(40)	(25)	(32)	(29)	(47)	(56)	(133)
NPV	(83)	(24)	(15)	(20)	(19)	(34)	(31)	(71)
PI	0.53	0.40	0.41	0.38	0.34	0.27	0.44	0.46
Impact on RPP								
Inflow	205	127	121	123	121	124	136	172
Outflow	(248)	(111)	(96)	(103)	(100)	(118)	(127)	(204)
NPV	(43)	16	25	20	21	6	9	(31)
PI	0.83	1.15	1.26	1.19	1.21	1.05	1.07	0.85

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

INTERROGATORY #34

General

Ref: Page 25

(a) What is the termination date of EGD's current five-year IRM program?

(b) Assuming a Board decision in September 2016, on terms acceptable to EGD, please provide a likely schedule of capital expenditures for community expansion projects for 2016 (if any), 2017, 2018, 2019.

RESPONSE

(a) Enbridge Gas Distribution's current five-year IRM will be complete at the end of fiscal 2018.

(b) Please see table below for expected capital expenditures for the Community Expansion Program in each of the years from 2016 through 2019 based on the project list shown in Table 6 and the timing described at paragraph 72 of Enbridge evidence.

	2016	2017	2018	2019
	($million)	($million)	($million)	($million)
Capital Spend profile	0	54	58	56

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

INTERROGATORY #35

General

Ref: Page 25, Paragraph 76

(a) EGD has proposed Y-factor treatment for its capital expenditures. What would the impact of this approach be on EGD's revenue requirement for each year remaining in the IRM program?

(b) Why would EGD require Y-factor treatment beyond the end of the current IRM? Please explain fully.

RESPONSE

(a) Please refer to Enbridge's response to BOMA Interrogatory #28 at Exhibit S3.EGDI.BOMA.28 for the impact on Enbridge Gas Distribution's revenue requirement.

(b) The requirement for Y-factor treatment beyond the end of the current IRM will be dependent on the type of rate setting mechanism utilized after the current IRM expires. Enbridge however expects that it will request inclusion of the community expansion projects completed during the term of the current IRM in rate base during the next rebasing in 2019.

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

INTERROGATORY #36

General

Ref: Page 25, Paragraph 77

(a) Which of the thirty-nine projects would require leave to construct applications? What other mechanism would be required for approval of the projects that did not require a leave to construct. Would they be included in the annual rate adjustment application for each of the remaining years of the IRM program? Please discuss.

(b) For the last ten years, for each distribution or transmission expansion project, including the GTA project most recently discussed at EGD's Stakeholder Consultation, that requires leave to construct:

- the capital budget forecast;
- the contingency factor in the capital budget forecast;
- the actual capital costs compared to the forecast capital cost, including the contingency;
- how any cost overrun or underspend was, or will be, treated in rates.

RESPONSE

(a) Based on the Company’s current capital cost estimates for the thirty-nine projects referenced in its proposal, all but the projects to serve the Wilkinson Subdivision, Innisfil and the 5th Line, Mono Township would require Leave to Construct Applications. With respect to projects that do not require Leave to Construct, it is the Company’s position that the Ontario Energy Board should allow for the recovery of the associated revenue requirement in any ratemaking model that may be in place, including the Company’s current IRM. Presumably, this would require the inclusion of these projects as part of the Company’s the annual rate adjustment applications.

(b) Please see table below.

Application #	Project	Capital budget forecast (inc. contingency	Contingency included in forecast	Actual capital cost	How cost overrun or underspend treated in rates
EB-2005-0539	Sithe Global	$22,445,345	$2,760,291	$20,848,544	Per Rate 125 (dedicated), actual costs used in calculating Customer's Billing CD.
EB-2006-0305	Portlands Energy Centre	$41,742,148	$5,217,769	$60,959,289	Overrun paid by the customer. Not in rate base.
EB-2006-0066	Scarborough phase I	$12,038,136	$1,486,977	$9,440,813	Variance included in next rate re-set.
EB-2007-0782	Georgian Bay	$12,436,425	$1,554,553	$8,797,933	Variance included in next rate re-set.
EB-2007-0745	Alfred & Planagenet	$2,634,282	$321,139	$2,313,444	Variance included in next rate re-set.
EB-2007-0913	Scarborough Phase II Pipeline	$13,318,152	$1,664,769	$12,494,242	Variance included in next rate re-set.
EB-2008-0065	Thorold Cogen	$6,397,224	$777,730	$6,016,000	Per Rate 125 (dedicated), actual costs used in calculating Customer's Billing CD.

EB-2009-0187	York Energy Centre	$39,104,543	$4,888,068	$28,667,959	Per Rate 125 (dedicated), actual costs used in calculating Customer's Billing CD.
EB-2011-0323	Alliston	$5,347,800	$668,474	$4,150,356	Variance included in next rate re-set.
EB-2012-0013	Angus	$4,134,963	$359,562	$4,014,446	Variance included in next rate re-set.
EB-2012-0099	Ottawa	$51,236,000	$5,567,000	$70,062,162	Variance to be included in next rate re-set.
EB-2012-0013	Durham York Energy Centre	$3,900,000	$339,000	$4,880,806	Overrun paid by the customer. Not in rate base.
EB-2014-0017 /EB-2105-0037	Innes Road	$7,243,501	$637,059	Have not been reported.	Variance to be included in next rate re-set.
EB-2012-0451	GTA	$623,700,000	$78,000,000	Have not closed.	Variance to be included in next rate re-set.

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

INTERROGATORY #37

General

Ref: Page 26

Please provide the capital cost per km of distance from the gas main from which the new line would originate for each of the thirty-nine communities, rank ordered from lowest to highest.

RESPONSE

Please see the table below.

	Community	Capital Cost with Pipeline solutio	Distance from Nearest Main (km)	Cost per Km from the nearest main
	Col 1	Col 2	Col 3	Col 4
1	Cotnam Island	2,171,890	10	$ 217,189
2	Glendale Subdivision	2,509,250	6	$ 404,718
3	Sarsfield	4,147,500	10	$ 414,750
4	Haydon	4,478,750	10	$ 447,875
5	Zephyr	5,184,375	11	$ 471,307
6	Hockley Village, Mono Twp.	6,204,020	13	$ 496,322
7	Enniskillen	5,109,500	10	$ 510,950
8	Curran	3,640,250	7	$ 520,036
9	Bainsville	3,997,750	7	$ 571,107
10	Caledon - Torbram Road	6,169,283	11	$ 587,551
11	5th Line, Mono Twp.	1,798,760	3	$ 599,587
12	Douglas	12,369,720	20	$ 618,486
13	Sandford	5,590,500	9	$ 621,167
14	Westmeath	6,448,500	10	$ 644,850
15	Eganville	26,853,960	40	$ 671,349
16	Caledon - Humber Station	2,067,960	3	$ 689,320
17	Leasksdale	5,590,500	8	$ 698,813
18	Cambray	7,583,140	10	$ 758,314
19	Barry's Bay	71,120,300	90	$ 790,226
20	South Glengary	8,203,500	10	$ 820,350
21	Town of Mansfield	6,817,129	8	$ 831,357
22	Kinmount	52,654,120	60	$ 877,569
23	Norland	44,373,120	50	$ 887,462
24	Wilkinson Sub, Innisfil	1,897,055	2	$ 948,528
25	Chute-a-Blondeau	9,634,780	10	$ 963,478
26	Coboconk	39,174,640	40	$ 979,366
27	Town of Marsville	8,047,225	8	$ 1,005,903
28	Woodville	9,290,550	9	$ 1,093,006
29	Udora	8,842,300	8	$ 1,105,288
30	Minden	78,108,620	68	$ 1,148,656
31	Haliburtion (Dysert)	104,815,526	88	$ 1,191,086
32	Lanark & Balderson	16,337,800	12	$ 1,361,483
33	Maxville	14,727,400	10	$ 1,472,740
34	Kinburn/Fitzroy Harbour	22,175,820	15	$ 1,478,388
35	Kirkfield	38,400,280	25	$ 1,536,011
36	St. Isidore	18,315,400	10	$ 1,831,540
37	Village of Lisle	9,966,800	5	$ 1,993,360
38	Fenelon Falls & Bobcaygeon	111,956,990	47	$ 2,387,143
39	Scugog Island	19,714,126	8	$ 2,628,550

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

INTERROGATORY #38

General

Ref: Page 26, Table 4

For each of the thirty-nine projects, please provide the "business case", including the geographic location of, and whether any industrial customers will be among the customers connected, and generally the likely economic development impacts of each of the thirty-nine projects. For example, in how many instances would the "supply of gas" be to an existing manufacturer in a competitive sector of the economy and currently on a more expensive fuel in any of the thirty-nine projects? Which company(ies)? How many jobs does the company(ies) support?

RESPONSE

The Company has not completed a “business case” for each of the thirty-nine potential community expansion projects. Further, the Company has not completed detailed market assessments for each of the communities referenced in its evidence in this proceeding that would enable it to estimate likely economic impacts of each of the thirty-nine projects.

ENBRIDGE GAS DISTRIBUTION INC. (ENBRIDGE)
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INTERROGATORY #39

General

Ref: Page 26, Table 4

For each of the Fenelon Falls and Scugog Island projects, if EGD has included a substantial number of new customers (rather than conversions), please provide the analysis on which the numbers of new customers are based.

RESPONSE

Please see Enbridge's response to Energy Probe Interrogatory #7 at Exhibit S3.EGDI.EP.7.

ENBRIDGE GAS DISTRIBUTION INC. (ENBRIDGE)
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INTERROGATORY #40

General

Ref: Page 26, Table 4

Given the agreed cut-off is fifty customers, why are the two communities Fifth Line and Chute-A-Blondeau, with twenty-four and forty-eight conversions, respectively, included in the list?

RESPONSE

The definition of a community expansion project proposed by the Company is a natural gas system expansion project which will provide first time natural gas system access where a minimum of 50 potential customers in homes and businesses already exist, for which economic feasibility guidelines permit a PI of less than 1.0. The Company's proposal also refers to Small Main Extension Projects, defined as all other forms of distribution expansion which provide first time natural gas system access to customers. Only one of the projects referenced in the Company's proposal in this proceeding has fewer than fifty potential customers, 5th Line, Mono Township, having thirty-two potential customers. This project fits the definition of a Small Main Extension.

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INTERROGATORY #41

General

Ref: Page 26

To what extent has the potential growth of a "community" been factored into the project priority list? Has this been done, as part of the analysis?

RESPONSE

Estimated future growth has been included in the Company's assessment of the Fenelon Falls – Bobcaygeon and Scugog Island projects. These growth estimates are based on draft plan approved subdivisions located in each of these communities. These customers have been included in the feasibility calculations for these two projects. With respect to the remaining thirty-seven projects the Company has not yet undertaken the detailed market assessments necessary to obtain this data. As such, there is the potential for additional market growth in the thirty-seven communities.

ENBRIDGE GAS DISTRIBUTION INC. (ENBRIDGE)
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INTERROGATORY #42

General

Ref: Page 26, Table 4

What is the total investment in the pipeline connection for each of the thirty-nine municipalities?

RESPONSE

Please refer to the response to BOMA's Interrogatory #37 at Exhibit S3.EGDI.BOMA.37.

ENBRIDGE GAS DISTRIBUTION INC. (ENBRIDGE)
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INTERROGATORY #43

General

Ref: Page 27, Table 5

Please confirm that the figures in column 14 are the capital contributions required from the community, the new customers, and/or the province in order to increase the P/I from what it would be under the EGD proposed program of new customer payments and the municipal subsidy, all as shown in column 13, to a P/I of 0.8. Please explain fully.

RESPONSE

Confirmed.

ENBRIDGE GAS DISTRIBUTION INC. (ENBRIDGE)
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INTERROGATORY #44

General

Ref: Page 29, Table 6

(a) Please provide the underlying analysis for the Annual Capital Subsidy for LNG for each of the nineteen communities EGD proposes to serve with LNG, as derived from the cost of the LNG capital investment for each community.

(b) Please provide the analysis underpinning the Annual Gas Subsidy assuming EGD purchased the LNG from a third party on a delivered basis for each of the communities. Please show separately the assumed commodity cost and the delivery charge for the LNG.

(c) Please discuss the allocation of risk in the contracts EGD would have with the third party LNG supplier. Can EGD provide a prototype of the proposed contract?

(d) Has EGD conducted an analysis to confirm the availability of LNG in Ontario once the time period in question, and the prices for which such LNG supply could be contracted? Please explain the results, and if no analysis has been done, why not?

RESPONSE

a) Please see table below containing the requested analysis to support calculations of “annual capital subsidy” and “annual gas cost subsidy.

		Capital Subsidy		Gas Cost Subsidy		
	Community	CIAC requ'ed for PI=1	Annual Capital subsidy [1]	Forecast customers	Volumes (m3)	Gas cost subsidy [2]
1	Haydon	$ 2,881,508	$ 181,704	75	180,000	$ 63,000
2	Woodville	$ 3,873,400	$ 244,251	225	540,000	$ 189,000
3	South Glengary	$ 3,349,105	$ 211,190	150	360,000	$ 126,000
4	Caledon - Torbram Road	$ 2,701,340	$ 170,343	59	142,200	$ 49,770
5	Chute-a-Blondeau	$ 3,776,025	$ 238,111	150	360,000	$ 126,000
6	Hockley Village, Mono Twp.	$ 2,635,878	$ 166,215	48	115,200	$ 40,320
7	Maxville	$ 4,542,093	$ 286,418	300	720,000	$ 252,000
8	Lanark & Balderson	$ 5,395,933	$ 340,260	300	720,000	$ 252,000
9	Douglas	$ 3,776,025	$ 238,111	150	360,000	$ 126,000
10	Eganville	$ 8,299,741	$ 523,371	525	1,260,000	$ 441,000
11	Kinburn/Fitzroy Harbour	$ 6,506,838	$ 410,313	375	900,000	$ 315,000
12	St. Isidore	$ 4,542,093	$ 286,418	300	720,000	$ 252,000
13	Kirkfield	$ 9,000,151	$ 567,538	600	1,440,000	$ 504,000
14	Minden	$ 14,650,186	$ 923,821	1,061	2,545,714	$ 891,000
15	Coboconk	$ 5,395,933	$ 340,260	300	720,000	$ 252,000
16	Norland	$ 3,776,025	$ 238,111	150	360,000	$ 126,000
17	Barry's Bay	$ 6,679,833	$ 421,221	375	900,000	$ 315,000
18	Kinmount	$ 3,776,025	$ 238,111	150	360,000	$ 126,000
19	Haliburtion (Dysert)	$ 20,174,865	$ 1,272,200	1,526	3,662,550	$ 1,281,893

Notes:
1 Annualized CIAC amounts discounted at EGD's WACC and amortized over 40 years
2 Gas cost Subsidy is the incremental cost of LNG commodity at $0.20/m3 and delivery cost @ $0.15 / m3

b) Please refer to the response of part a) above.

c) As Enbridge has not yet entered into any contracts for the supply of LNG, definitive comments on the allocation of risk in such contracts cannot be provided at this time. For a summary of typical LNG supply agreement terms please see http://www.corporatif.gazmetro.com/corporatif/communique/en/html/3906417_en.aspx?culture=en-ca, and http://www.corporatif.gazmetro.com/corporatif/communique/en/html/3906417_en.aspx?culture=en-ca.

d) Enbridge has confirmed availability of LNG in Ontario. Enbridge would propose to procure LNG from the lowest cost producer who can demonstrate they meet or exceed our safety and integrity requirements. Currently, the nearest suitable producer is Gaz Metro who operates an LNG plant in Montreal, Quebec. However, future supplies could come from other suppliers including Union Gas who has a LNG facility in Hagar, Ontario, and Northeast Midstream who is proposing an LNG production facility in Thorold, Ontario. To ensure security of supply, Enbridge may also enter into backstop agreements with LNG producers in the United States.

ENBRIDGE GAS DISTRIBUTION INC. (ENBRIDGE)
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INTERROGATORY #45

General

Ref: Page 32 of 36, Table 9

(a) Table 9 shows only one industrial project among the thirty-nine municipalities. Does this mean there is only one manufacturer in the thirty-nine communities at this time; one manufacturer that competes with others outside Ontario; competes with other manufacturers of the same product inside Ontario?

(b) Please compare the average cost per residential customer, and commercial customer, as shown on Table 9 with the overall cost (capital and O&M) per customer.

RESPONSE

(a) As of yet the Company has only identified one potential industrial customer in the thirty-nine community expansion projects under consideration that would meet the requirements of the Company's large volume rates. Several other smaller industrial customers have been identified in the communities of Fenelon Falls and Bobcaygeon and have been treated as General Service Rate 6 customers for the purpose of the feasibility analyses. Table 9 shows only one industrial project among the thirty-nine municipalities. Based on the nature of the single potential large volume customer that has been identified the Company believes that its primary competitors would be located in Ontario.

(b) Please see Cost per customer data as per table 9.

	Cost per customer	
	Capital	O&M
Residential	$16,340	$68
Commercial	$133,049	$174
Overall average	$25,285	

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INTERROGATORY #46

General

Ref: Page 32, Table 9

Please provide the working papers used to derive the numbers on each line and column of Table 9, as well as the bill impact numbers shown on paragraph 95.

RESPONSE

The manner in which the numbers were derived in the referenced evidence is set out in the table below.

Line	New customers' attachment profile	
1	Residential	Year over year forecast of new customers based on field estimates and Municipal Draft Plan
2	Commercial	Same as Line 1
3	Industrial	Same as Line 1
	Total customers	
4	Capital Investment	Year over year investment estimated for implementing Community Expansion Program. These estimates are developed based on a combination of method including field visits, GIS systems and planning tools
	Volume Build up	
5	R1 (Residential)	Year over year volumetric consumption of new residential customers assuming an average of 2,400 m3 per customer
6	R6 (Com/Ind)	Year over year volumetric consumption of new commercial customers assuming various averages uses depending upon the size and nature of business
	Revenue requirement	
7	Revenue requirement	Year over year revenue requirement (RR) caused by investments in new communities. Based on a Board approved methodology, these calculations include ROE, financing cost, depreciation, upstream gas cost, O&M, and taxes
8	- Less: revenue from new customers	Year over year revenue received from new customers based on existing rates and SES
9	Incremental revenue requirement (Inc. RR)	Line 7 minus line 8
	Bill impact -residential customers	
10	Increase in Rev Req for R1 customers	The portion of incremental Rev Req on line 9 attributable to residential customers
11	Year-over-year change in RR	Year over year change in Rev Req (line 10) relative to the prior year
12	Total residential throughput (106 m3)	Total company-wide residential throughput used to design unit rates. Source:
13	Unit rate impact - residential ($/m3)	Line 11 divided by line 12
14	Annual average use - residential (m3)	Average use of a typical residential customer, Source: Enbridge Rate Handbook
15	Year-over-year bill increase	Line 13 x Line 14
	Gas cost impact	
16	Year-over-year increase in LNG cost	Incremental cost of LNG fuel and trucking compared to current natural gas commodity

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INTERROGATORY #47

General

Ref: Page 20 of 38

Does EGD agree that in order to capture the public interest aspects of proceeding with a community expansion project, the impact of the project on GHG emissions should be considered, including efforts to mitigate such GHG impacts?

RESPONSE

Yes, GHG emissions should be considered along with a number of other factors. Please see the Company's response to Environmental Defense Interrogatory #1 at Exhibit S3.EGDI.ED.1.

ENBRIDGE GAS DISTRIBUTION INC. (ENBRIDGE)
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INTERROGATORY #48

General

Ref: Issue 8

(a) Does EGD agree that a new entrant should be able to charge higher rates than currently approved Union or EGD rates to its customers in a currently unserved area, if that it is necessary for that entrant to earn a compensatory return on capital? If not, why not? Could it charge lower rates than existing EGD and Union rates if it could still earn its return?

(b) Does EGD think that it would be, or could be, in the public interest to have more than the current gas distribution utilities, active in Ontario? Please discuss fully.

(c) Ref: Page 33

(i) Does EGD believe that the addition of new customers could reduce O&M costs as a result of the larger base over which to spread fixed costs on a per customer basis? Please explain why. Which fixed costs of overall administrative support capability would be more widely spread?

(ii) By how much?

RESPONSE

(a) Yes, Enbridge agrees that a new entrant should be able to charge higher rates than those currently approved by the Ontario Energy Board for Union Gas or Enbridge. A new entrant could potentially charge lower rates than those now approved by the Board for Enbridge and Union Gas, however, it is not possible for the Company to comment on how this may impact on this party’s earnings and return on investment without detailed knowledge of its cost base, operating costs and revenues.

(b) As indicated in its evidence in this proceeding Enbridge is of the view that having additional gas distributors may or may not be in the public interest. However, there would be a large number of considerations that the regulator would need to weigh before coming to such a conclusion. These considerations have been articulated in the evidence of both Enbridge and Union Gas in this proceeding.

(c) Ref: Page 33

(i) Yes, Enbridge agrees that the addition of new customers could reduce O&M costs per customer as a result of spreading fixed costs over a larger customer base. An example of this would be the cost of the Company's Customer Information System. For the most part its cost does not vary with the number of customers served by it. In the context of this proceeding the Company is unable to undertake the detailed cost study that would be required in order to identify all fixed versus variable costs required to fully answer this question.

(ii) Please see the Company's response to part (c) (i) of this question. However, given that the Company's community expansion proposal anticipates adding 16,000 customers compared to an existing customer base of approximately 2.2 million it is not anticipated that the Company's average O&M cost per customer would significantly change as a result of implementing its community expansion proposal.

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INTERROGATORY #49

General

Ref: General

Does EGD think that the Board should become more heavily engaged in the process to choose a new supplier for an unserved community using RFPs or otherwise? If so, please explain the process EGD would envisage.

RESPONSE

No. There is nothing in place today that precludes a community from selecting any party to provide gas distribution service to it, nor is there anything to preclude any party from bringing applications before the Board to provide such services to a community.

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INTERROGATORY #90

General

Is EGD prepared to accept a reduction to its allowed ROE with respect to the rate base dedicated to the CEP over the initiate five years of the project?

RESPONSE

No, Enbridge Gas Distribution does not accept such a notion. Please see the response to Board Staff Interrogatory #11 at Exhibit S3.EGDI.BSTAFF.11.