

Discovery no. 1 from expert Paul L. Chernick to Gaz Métro related to the application regarding the allocation of costs and rate structure of Gaz Métro phase 3, part A (Methodology for the determination of long term marginal costs)

1. Sources:

- (i) R-3867-2013, C-FCEI-0057, Study of the Marginal Costs of Long-Term Service Delivery Applied to the Profitability Analysis (Gaz Métro-6, Document 1);
- (ii) R-3867-2013, C-FCEI-0057, Study of the Marginal Costs of Long-Term Service Delivery Applied to the Profitability Analysis (Gaz Métro-6, Document 1) Section 2016.10.04.

Preamble:

- Gaz Métro does not define the units of the values in some tables.
- Gaz Métro does not provide the source of many values in its report.
- Gaz Métro repeats page numbering in this document.

Questions:

1.1. Please explain the meaning of the percentages in the table on page 3 of the 2016.10.04 material.

Response:

The percentages in that table represent the profitability, per market, of the 2013 development plan based on the various methods used to determine the marginal costs of long-term service delivery.

1.2. Please explain the meaning of the "Total" line in the table on page 3 of the 2016.10.04 material.

Response:

The "Total" line represents the aggregate profitability of the 2013 development plan based on the various methods used to determine the marginal costs of long-term service delivery.

1.3. Please explain the meaning of the columns labeled "(CT 2015)", "\$157", and "Before \$157" on page 3 of the 2016.10.04 material.

Response:

The "New CT2015 Approach" column represents the profitability calculated based on the method used to determine the marginal costs of long-term service delivery described in the evidence adduced by Gaz Métro in the context of the 2015 Rate Case (R-3879-2014 Gaz Métro-17, Document 14).

The "\$157" column represents the profitability calculated using the \$157 marginal cost of long-term service delivery, namely the method used by Gaz Métro since the Régie's D-2013-106 decision.

The "Before \$157" column represents the profitability calculated using the marginal costs of long-

term service delivery method applied by Gaz Métro before the D- 2013-106 decision.

1.4. Please provide the derivation of each value in the tables on the following pages, in spreadsheets with all formulae and supporting data:

- a) Page 3 of the 2016.10.04 section.
- b) Pages 6, 7 and 9 of the 2014.10.08 section.
- c) Appendix 1 of the 2014.10.08 section.

Response:

(a)

Gaz Métro refers you to the response to question #7.a of Mr. Baudino's request for information no. 1, Gaz Métro-8, Document 4.

(b)

Page 6: The details of the summary table presented on page 6 correspond to the information presented in the tables of Schedule 1. Please refer to the response to question (c).

Page 7: The costs per market for additional loads presented in the summary table on page 7 break down as follows:

Market	Costs	Year 1		Year 2 and following	
		Min	Max	Min	Max
Residential	Input of a new contract - Residential	\$36.29	\$36.29	\$0.00	\$0.00
	Total	\$36.29	\$60.12	\$-	\$-
CII	Input of a new contract - Commercial	\$52.62	\$52.62	\$0.00	\$0.00
	Total	\$52.62	\$158.96	\$-	\$-
Sales, Major Industries	Input of a new contract – Sales, Major Industries	\$36.29	\$36.29	\$0.00	\$0.00
	Cost associated with an internal credit investigation		\$17.19	\$0.00	\$0.00
	Ranging - Cost of a cell line	\$0.00	\$186.12	\$0.00	\$186.12
	Total	\$36.29	\$239.60	\$-	\$186.12

Gaz Métro refers you to question 1.1. of the Régie's request for information no. 5, Gaz Métro-8, Document 1, which explains the methodology used to calculate each of the costs presented.

Page 9: Gaz Métro refers you to question 1.5 of the CFIB's request for information no. 1, Gaz Métro-8, Document 3, for explanations regarding the table presenting the average weighted costs per market.

Page 9: Gaz Métro refers you to question 7.a of Mr. Baudino's request for information, Gaz Métro-8, Document 4, for explanations regarding the calculations performed to establish profitability, per market, presented on page 9.

(c)

Gaz Métro refers you to the response to question 1.1 of the Régie's request for information no. 5, Gaz Métro-8, Document 1, which explains in detail each of the formulas used to establish the amounts in the tables of Schedule 1. The work papers supporting these formulas pertain to the interviews of managers described in the ROEE's response to question 1.1 in the exhibit Gaz Métro-8, Document 6. In the opinion of Gaz Métro, the information adduced in these two responses is sufficient to understand and appreciate the method proposed.

Upon reading this information, you will see that the formulas and data supporting the values proposed in the tables contain very little data that may be useful in creating simulations, scenarios or additional analyses. What is more, this underlying data bearing on the disclosure of certain individuals' salaries can only be provided on a confidential basis.

Considering the limited usefulness of having access to this sensitive information, and in light of the information provided in the response to question 1.1 of the Régie's request for information no. 5, Gaz Métro submits that providing that information is not desirable.

1.5. Please provide the units of the tables on pages 6, 7 and 9 of the 2014.10.08 section.

Response:

The units are expressed in dollars per customer.

1.6. Please provide the derivation of the \$157 value.

Response:

Gaz Métro does not have this information. The value of \$157 was taken from a response of Pacific Economics Group Research (PEG) to a request for information from CFIB pertaining to the report *Research for Gaz Métro's Performance Incentive Mechanism*. Note that the \$157 value does not come from data specific to Gaz Métro, but rather from an average of a sampling of U.S. utilities. This report may be accessed on the Régie's website under B-0025, Gaz Métro-2, Document 1 in R- 3693-2009. Here is an excerpt from PEG's response:

Question:

Based on GM's average OPEX (737\$/customer) and CAPEX (634\$/ customer) and the elasticity factor found in PEG's study for OPEX (0.8) and CAPEX (0.95), is it correct that the implied marginal cost of adding a new customer would be 590\$ and 602\$ for OPEX and CAPEX respectively? If not, please indicate what the implied marginal costs would be. Please compare those values with the actual US marginal cost and comment on the differences. Please compare those values with the marginal cost used by Gaz Métro to assess the profitability of its customer additions and comment on the differences?

Answer from. PEG:

Since

Elasticity = marginal cost / average cost,

it is also true that

Marginal cost = elasticity x average cost.

Our econometric work suggests that, at mean values of the business conditions in our US sample, the elasticity of cost with respect to the number of customers served is .80 for O&M expenses but only 0.34 for capex. We could in principle use these results to

provide the following marginal cost estimated for Gaz Metro.

$$MC_{opex} = \$ 737 \times .80 = \$ 590$$

$$MC_{capex} = 634 \times .34 = \$ 216.$$

However, we do not believe that these estimates would be accurate because the elasticity of O&M expenses and capex with respect to customers in the United States is likely to be much higher than that for Gaz Metro due to a higher level of customer density in the States.

The mean estimates of the marginal costs of customers for the utilities in our sample with respect O&M and capex are, in 2008 dollars, \$157 and \$62. "

Excerpt from Exhibit B-0032, Gaz Métro-5, Document 5, page 11 of R-3693-2009.

- 1.7. Please provide the units of the \$157 value. Is this value per customer or per m³? Is it an annual value or a present value?

Response:

This \$157 amount is per client, per year, before discount.

- 1.8. Please provide the "study of U.S. businesses carried out by the expert Pacific Economics Group (PEG)" (page 4 of the 2014.10.08 material).

Response:

Please refer to the response to question 1.6.

2. **Source:**

R-3867-2013, C-FCEI-0057, Study of the Marginal Costs of Long-Term Service Delivery Applied to the Profitability Analysis (Gaz Métro-6, Document 1).

Preamble:

- Gaz Métro does not appear to include any demand-related marginal costs due to capacity expansion required to serve new load.
- The document does not identify costs related to increased peak demand and requirement for distribution capacity resulting from customers added through service extensions.
- Page 5 of section 2014.10.08: "The items included in the marginal costs are the additional costs to issue an invoice, cash a payment and, for a telemetry customer, to use a cell line. The internal costs associated with maintaining facilities at a customer's premises primarily consist of the salaries and fringe benefits of the employees who perform the tasks to which can be added, in the case of employees assigned to maintenance and meter reading, the cost of clothing. Maintenance activities relate to the meters, the connection, and the pipeline installed at the customer's premises, and the services provided relate to credit checks, the processing of financial assistance or the consumer Rebate Consumption Program ("RCP"), telephone calls to customers, meter reading, bad debts, collection, customer retention, and the drawing up of contracts."

Questions:

- 2.1.** Please explain how Gaz Métro plans to take into account the costs of increasing capacity from the pipeline delivery points to the beginning of the equipment added as part of a service extension.

Response:

The question assumes that capacity be added for service extension. It is not a sound assumption since most extension do not require capacity increase.

Further, the question is beyond the scope of the analysis which is limited to marginal O&M costs. Finally, should O&M costs be required for capacity increase in the context of an extension, it should not be accounted for in the MCOS since it would fall into the category of costs that only increase marginally in a stepwise manner.

- 2.2.** Please provide any studies of the marginal cost of serving additional load, prepared by or for Gaz Métro, since 2000.

Response:

No study on the subject was prepared since 2000.

- 2.3.** Please provide the amount of additional demand included in the computations and results shown on page 3 of the 2016.10.04 section, and pages 6, 7, and 9 of the 2014.10.08 section.

Response:

Please refer to the response to question 2.1.

- 2.4.** Please provide a list of all the load-related projects that have entered service on the Gaz Métro transmission, supply and distribution lines (such as looping, compression, additional connections to pipeline supplies and additional storage) completed since January 1, 1995 or currently under construction.

Response:

Please refer to the response to question 2.1.

- 2.5.** Please provide the cost of each of the load-related projects identified in the previous question.

Response:

Please refer to the response to question 2.1.

- 2.6.** Please provide a list of all the load-related projects currently planned or proposed on the Gaz Métro transmission, supply and distribution lines (such as looping, compression and additional connections to pipeline supplies).

Response:

Please refer to the response to question 2.1.

- 2.7.** Please provide the cost of each of the load-related projects identified in the previous question.

Response:

Please refer to the response to question 2.1.

- 2.8.** Please indicate on a map of the Gaz Métro system the location of each past and projected load-related project, as well as the location of the line extensions completed since 1995, under construction, or proposed.

Response:

Please refer to the response to question 2.1.

- 2.9.** Please explain the meaning of the references to the marginal cost of service delivery associated with an additional load for an existing client, if Gaz Métro is not including the costs of adding gas-delivery capacity.

Response:

Please refer to the response to question 2.1.

- 3. Source:**

R-3867-2013, B-0145, Overcast Evidence (Gaz Métro-6, Document 2), p. 2.

Preamble:

- "By the time a "step" increase in O&M is needed, there will likely have been numerous customer additions to the system that can absorb the added cost with no impact to existing customers."

Questions:

- 3.1.** Please explain what "absorbs the added cost." If the absorbent is the revenues from the new customers, please explain how the Gaz Métro methodology accounts for the revenues required to absorb those costs in evaluating the economics of service extensions.

Response:

Since new customers have zero marginal cost for a number of activities such as meter reading and billing and the rates include average costs for these activities, one of two alternatives occurs. First fixed costs are spread over more units reducing the per unit revenue requirement for this activity. The NPV of this effect continues to such time as the added customers require an increase in revenue requirements to add another unit to perform the activity. In that event the average cost is changed only by inflation and the current rates would generate revenue to cover the added costs ignoring the interim benefit for all customers. If we count the interim benefit as reduced rates or avoiding a rate increase, other customers are better off with the addition because of scale economies. Second, the cost of this service is reduced and rates reflect that reduction. All customers benefit immediately. When the threshold is reached new rates are required and the number of customers will absorb the added cost is large enough to share those costs at the old average cost adjusted for inflation and the real cost over time remains constant. Either way the added cost is absorbed. In a proper line extension policy the customer charge is deducted from revenue. Thus the line extension policy does not rely on that revenue to determine the profitability of the line extension.

- 3.2.** Please provide a numerical example of the absorption of step-type costs (e.g., hiring an additional meter reader, or looping an upstream main) caused by service extension to multiple customers, demonstrating that the revenues from new customers is not counted twice: once in the evaluation of the service extension and a second time in offsetting the step cost.

Response:

Please refer to the response to question 3.1 above. Note that looping main is not part of the marginal cost of O&M.

4. Source:

R-3867-2013, B-0145, Overcast Evidence (Gaz Métro-6, Document 2),
p. 5.

Preamble:

- "Distribution Gas Supply expenses (category 3) have no relation to marginal costs as these costs are related to personnel managing the gas supply these costs do not vary with added throughput or customer costs."

Questions:

- 4.1.** Please explain in detail the activities of the personnel whose costs are included in the Distribution Gas Supply category.

Response:

The Distribution Gaz Supply branch has 5 departments:

1. **Economic affairs:** One person is assigned to this department, which is mainly responsible for performing watches of the energy market and its underlying influencing factors, as well as for communicating that information internally and externally. This person is also responsible for preparing power price forecasts and the economic hypotheses used to establish Gaz Métro's rate case.
2. **Long-term planning:** This three-person team is mainly responsible for developing the long-term planning aspect of the supply plan. As such, it is responsible for presenting a four-year supply strategy to the Régie (supply, transmission and storage) that is based on the projected demand. It also monitors the evolution that takes place in the year underway so as to make any necessary adjustments to the planning for the rest of the fiscal year. Finally, it is involved in the annual report's presentation of the supplies that were actually used during the fiscal year and the justification of differences with the rate case.
3. **Operations:** This five-person team is primarily in charge of preparing short-term planning. To that end, it determines what supply tools (supply, transmission and storage) are to be used to meet the demand, attributes nominations to the various suppliers, and manages interruptions. It is moreover responsible for negotiating and contracting the various short-, medium-, and long-term tools identified in the context of the long-term planning, as well as

for optimizing unused supply tools on the secondary market in order to meet customer demand.

4. **System Control Centre:** This team consists of six permanent operators and a back-up team of three temporary positions for replacements. The members of this team mainly supervise and control Gaz Métro's delivery points and those of the transmission, supply and distribution systems. They also monitor customer demand in real time in order to make adjustments in the course of the day to the supply nominations placed with the transmission and storage providers.

5. **Contractual matters:** This team is made up of 14 employees whose role consists mainly of managing the supply agreements of direct purchase customers and the fixed price agreements entered into by customers with an external supplier, namely: creation of agreements (including management of the nominations of these customers), settlement of volume imbalances and communications with customers. This department is also responsible for the administrative management of Gaz Métro's gas supply agreements and processing the associated supply invoices. Finally, this team is also responsible for determining the price of Gaz Métro's supply services on a monthly basis.

4.2. Please provide Gaz Métro's Distribution Gas Supply expenses for each year 1995-2015.

Response:

The following table presents the yearly operating expenses of the Distribution Gas Supply branch. Due to the 2002 transition to SAP, earlier data is not available.

Year	Operating expenses (\$)
2002	2,314,109
2003	3,280,536
2004	3,308,085
2005	3,490,297
2006	3,330,356
2007	3,323,621
2008	3,204,184
2009	3,097,095
2010	2,844,694
2011	2,873,730
2012	2,638,352
2013	3,270,808
2014	3,240,464
2015	3,608,943

4.3. Please provide the volume of gas sold by Gaz Métro for each year 1995-2015.

Response:

The following table indicates the volumes distributed by Gaz Métro before the normalization came into force. Information prior to 2002 is not available, as indicated in the response to question 4.2.

Year	Distributed volumes, prior to normalization (in 10 ³ m ³)
2002	5,379,104
2003	5,430,632
2004	5,482,233
2005	5,300,103
2007	6,131,954
2008	5,728,620
2009	5,131,438
2010	5,215,082
2011	5,467,496
2012	5,218,338
2013	5,447,715
2014	5,863,609
2015	5,849,106
2016	5,531,924

4.4. Please provide the volume of gas delivered by Gaz Métro (including gas owned by third parties and customers) for each year 1995-2015.

Response:

The following table indicates the volumes consumed by all Gaz Métro customers. Information prior to 2002 is not available, as indicated in the response to question 4.2.

Year	Volume, in 10 ³ m ³			
	Gas system and purchase/sale	Fixed price gas	Gas without transfer of ownership	Total volume of gas supply
2002	3,621,516	-	1,757,588	5,379,104
2003	3,267,822	-	2,162,810	5,430,632
2004	3,227,792	2,054	2,252,387	5,482,233
2005	3,122,371	106,736	2,070,996	5,300,103
2006	3,156,306	165,931	1,959,357	5,281,594
2007	2,962,320	266,153	2,903,481	6,131,954
2008	2,799,342	277,270	2,652,008	5,728,620
2009	2,775,965	293,089	2,062,383	5,131,438
2010	2,622,596	289,546	2,302,940	5,215,082
2011	2,594,606	339,049	2,533,841	5,467,496
2012	2,322,911	356,962	2,538,465	5,218,338
2013	2,255,424	439,797	2,752,494	5,447,715
2014	2,562,729	418,715	2,882,165	5,863,609
2015	2,622,381	347,109	2,879,616	5,849,106
2016	2,375,876	280,882	2,875,166	5,531,924

4.5. Please provide Gaz Métro's estimate of its design peak day delivery requirements for each year 1995-2015.

Response:

This table presents a history of the ongoing peak day demand defined in the context of rate cases. Information prior to 1999 is not available.

Year	Peak day 10 ³ m ³
1999 ⁽¹⁾	27,374
2000	28,037
2001	29,118
2002	27,411
2003	28,089
2004	28,309
2005	30,279
2006	29,883
2007	31,457
2008	30,428
2009	28,970
2010	27,160
2011 ⁽²⁾	27,628
2012	27,489
2013	29,077
2014 ⁽³⁾	31,521
2015	33,340
2016	34,263

(1) 18°C baseline

(2) Modification: 13°C baseline, with cross-wind effect

(3) Modification: methodology used for distribution rate D3 and D4 customers

4.6. Please provide Gaz Métro's estimate of the inflation rate most applicable to the expenses included in the Distribution Gas Supply category, for each year 1995-2015.

Response:

The following table presents the inflation rate provided in the exhibit on the evolution of service costs filed in Gaz Métro's rate cases (for instance, R-3879-2014, B-0735, Gaz Métro-109, Document 4, line 13).

Year	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Inflation	2.2%	1.6%	1.6%	0.9%	1.4%	2.6%	2.6%	1.6%	3.3%	1.6%	2.4%
Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Inflation	2.0%	1.3%	2.3%	0.6%	1.3%	2.6%	2.4%	1.1%	1.1%	1.8%	2.0%

- 4.7. For any North American local distribution company (LDC) for which Gaz Métro has (or can access) such data, please provide that company's equivalent of Distribution Gas Supply expenses and that company's gas deliveries.

Response:

In the context of R-3879-2014, Gaz Métro filed a study on natural gas storage in exhibit (B-0234) Gaz Métro-7, Document 3. This exhibit integrates the marking conducted by the consulting firm Sussex Economic Advisors, LLC ("Sussex") which presents, in its Schedule B, the annual volumes for 2013 of several gas utilities. No information regarding the expense associated with gas supplies is presented in this study, however, and Gaz Métro does not have any such information.

Considering that only a portion of the information is available, Gaz Métro did not deem it necessary to re-file the Sussex study in the context of this case.

5. **Source:**

R-3867-2013, B-0145, Overcast Evidence (Gaz Métro-6, Document 2), p. 8.

Preamble:

- "[...] meter reading falls into the category of costs that only increase marginally in a stepwise manner. No single customer addition is likely to increase the costs of meter reading. As such we recommend removing this cost."

Questions:

- 5.1. Please provide Gaz Métro's estimate of the number of customers that is sufficient to increase the costs of meter reading, for customers typical of Gaz Métro's service extensions. If that number varies significantly by customer density or type, please provide Gaz Métro's estimates for each such variation, if available. Please provide the derivation of those estimates.

Response:

Gaz Métro does not have such estimates as it prepares its labour plan according to the guidelines listed in the response to question 5.4.

5.2. Please provide the annual cost of adding a meter reader, including salary, benefits, overheads, vehicle and other costs.

Response:

As indicated in the response to question 11.1, since the cost relates mainly to salaries, this data may only be provided confidentially. However, considering the limited usefulness of having access to this sensitive information, and in light of the information provided in the response to question 1.1 of the Régie's request for information no. 5, in ExhibitB-0196, Gaz Métro-8, Document 1, Gaz Métro submits that providing that information is not desirable

5.3. Please provide the number of meters a meter reader would be expected to read per month, for customers typical of Gaz Métro's service extensions.

Response:

A meter reader's workload is not determined according to the number of meters to be read, but rather according to the guidelines listed in the response to question 5.4.

5.4. Please provide the guidelines that Gaz Métro uses to determine the number of meter readers it needs in a meter-reading area or district.

Response:

The following guidelines are applied to determine the meter reading routes to be completed monthly:

- Area and kilometers of the territory to cover;
- Round-trip distance to get to and return from the territory to cover;
- Geographic area of the territory to cover (postal code/city); and
- Geographic obstacles of the territory to cover (highways, bridges).

5.5. Please provide the number of meter readers that Gaz Métro employs in each meter-reading area or district.

Response:

District	Number of meter readers
Greater Montreal and its surroundings	10.0
Abitibi	0.3
Mauricie	0.5
Estrie	1.0
Quebec	1.0
Saguenay	0.3

6. Source:

R-3867-2013, B-0145, Overcast Evidence (Gaz Métro-6, Document 2), p. 8.

Preamble:

- "Not all customers make calls to the utility so we recommend changing the minimum range to zero."

Questions:

6.1. Please explain how Gaz Métro would determine whether particular new customers will "make calls to the utility".

Response:

In its proposal, Black & Veatch established that a new customer will not systematically call the utility, and recommends setting the minimum at zero. In its application of the method, Gaz Métro will use the same logic and attribute this minimum to new customers for the purposes of establishing its marginal operating cost used in the profitability analysis, given the impossibility of determining which customer will make a call.

6.2. Does Gaz Métro expect that new customers will "make calls to the utility" with the average frequency as long-established customers, more often, or less?

Response:

Gaz Métro is unable to predict the conduct of future customers.

6.3. Does Gaz Métro expect that new customers will have more questions that long-established customers about their gas usage, gas bill, operation of new gas appliances, and/or damage to their property from installation of the service connection?

Response:

Gaz Métro is unable to predict the conduct of future customers.

7. Source:

R-3867-2013, B-0145, Overcast Evidence (Gaz Métro-6, Document 2), p. 8.

Preamble:

- "Bad debt and collections expense should not be anticipated for a new customer and the marginal cost should be zero."

Questions:

7.1. Please provide any data available to Gaz Métro on the frequency and quantity of bad debt and collections expense as a function of how long Gaz Métro has served the location.

Response:

Gaz Métro does not have any such information. Existing information systems do not offer the possibility of establishing a correlation between bad debts and collection expenses and the term for which the service is provided at a service address.

7.2 Would Gaz Métro expect the customer account a new location to eventually have bad debt and collections expense comparable to the class average, as the fortunes of the original customer changes or a new customer moves into the building?

Response:

Gaz Métro can make no such prediction. For "other uses" customers, Gaz Métro may, after a credit investigation, demand a security deposit covering the potential bad debt risk that this customer poses.

8. Source:

R-3867-2013, B-0145, Overcast Evidence (Gaz Métro-6, Document 2), p. 8.

Preamble:

- "Preventative and Corrective Maintenance on Service Lines - Gaz Metro has proposed a method in which the total cost of preventative and corrective maintenance be based on the total cost of the activity (based on total hours times the standard cost rate) divided by the number of services. In reality, there is a limited amount of maintenance required for services. While Gaz Metro does have preventive programs (service line inspection, leak detection) that are made on a multiyear basis, there are not ongoing annual costs for an individual service. Further, there is no reason to expect maintenance costs in the first year of placement. Therefore, we recommend using zero for the first year costs and zero for the minimum in years 2+."

Questions:

8.1. Please provide any information available to Gaz Métro on the frequency and cost of calls for corrective maintenance on services in the first five years after a service connection is installed.

Response:

Gaz Metro doesn't have any specific information relating to the installation date of the service connections and the frequency for corrective maintenance that occurs in the first five years. However, the most common corrective maintenances that are required are the replacement of a defective regulator or valve and their normal life span far exceeds five years so there are corrective maintenances expected in that time frame.

8.2. How frequently does Gaz Métro carry out service line inspection, leak detection and other preventive programs?

Response:

Every 6 years, Gaz Métro performs a service line inspection, leak detection and maintenance.

9. Source:

R-3867-2013, B-0145, Overcast Evidence (Gaz Métro-6, Document 2), p. 8.

Preamble:

- "[...] we also recommend eliminating the customer retention cost for major accounts. Much like meter reading, the addition of one customer is unlikely to increase the costs of staff responsible for customer

retention activities."

Questions:

9.1. Please provide Gaz Métro's estimate of the number of customers that is sufficient to increase the costs of customer retention, for CII and major-industry customers typical of Gaz Métro's service extensions. If that number varies significantly by customer density or type, please provide Gaz Métro's estimates for each such variation, if available. Please provide the derivation of those estimates.

Response:

Gaz Métro must point out that its representatives are not dedicated only to customer retention activities, but also to customer acquisitions and other representation activities. Gaz Métro does not therefore have access to specific data which would allow it to measure the number of additional clients which would, in a context of retention, give rise to an increase in operation costs, as such costs can vary greatly depending certain factors. In addition, the regional socio-economic context, market segments and client profiles significantly influence efforts relating to client retention activities.

9.2. Please explain whether Gaz Métro customer-retention operations are divided by region, and if so, please provide the number of CII customers, major-industry customers and customer-retention representatives for each region.

Response:

Customer retention activities are not only divided by region; they can also be divided by client type. Responsibilities relating to customer retention therefore go beyond the territorial context. For this reason, Gaz Métro is not in a position to provide the number of representatives by region. Gaz Métro can however present the following table, which details the regional allocation of customers for the CII and major-industry segments.

Regions	CII	Major industries	Total
Abitibi	1,093	3	1,096
Estrie	6,392	55	6,447
Laurentians	12,221	42	12,263
Mauricie	2,998	20	3,018
Montréal	10,858	59	10,917
Montreal-East	16,344	90	16,434
Montreal-West	10,934	47	10,981
Quebec	6,692	39	6,731
Saguenay-Lac-Saint-Jean	2,076	21	2,097
Total	69,608	376	69,984

9.3. Please provide the number of CII customers and major-industry customers that each customer-retention representative is expected to serve. If that number varies by the type of customer or the density of customers, please provide Gaz Métro's expectation for each situation.

Response:

As indicated in the response to question 9.1, Gaz Métro's representatives have responsibilities that go beyond customer retention. Given the different tasks performed by representatives for various current or future clients, in different regions and in different contexts, a systematic minimum number of customers cannot be attributed to each representative.

10. Sources:

- (i) R-3867-2013, C-FCEI-0057, Study of the Marginal Costs of Long-Term Service Delivery Applied to the Profitability Analysis (Gaz Métro-6, Document 1), Appendix 1, pp. 1-3.
- (ii) R-3867-2013, B-0145, Overcast Evidence (Gaz Métro-6, Document 2), pp. 9-11.

Preamble:

- The marginal cost for Corrective maintenance of Mains differs between these sources.

Questions:

10.1. Please explain the difference between the \$0.37/m in Document 2 and the \$0.34/m in Document 1.

Response:

The difference is due to an error by Gaz Métro. The amount appearing in document 1 should have been \$0.37/m.

10.2. Please clarify whether the dollar values in these sources are in 2012 dollars, 2016 dollars, or some other vintage.

Response:

Gaz Métro refers you to its response to question 1.1 of the Régie's request for information no. 5, Gaz Métro-8, Document 1, which explains the methodology used in detail.

11. Source:

R-3867-B-0145, Overcast Evidence (Gaz Métro-6, Document 2), p. 9, Table 2.

Preamble:

- The derivations of the values in Tables 2 through 4 are not provided, and the use of the range of values in these Tables is not explained.

Questions:

11.1. Please provide the sources and computations of the columns labeled "Gaz Métro As Proposed."

Response:

Gaz Métro refers you to the response in question 1.1 of the Régie's request for information no. 5, Gaz Métro-8, Document 1, which explains in detail each of the formulas used to establish all of the amounts in tables 2, 3 and 4, and this for the columns bearing on Gaz Métro's initial proposal, as well as the columns on Black & Veatch's proposal. The work papers supporting these formulas are provided in the ROEE's response to question 1.1 in exhibit Gaz Métro-8, Document 6. In the opinion of Gaz Métro, the information adduced in these two responses is sufficient to understand and appreciate the method proposed.

Upon reading this information, you will see that the formulas and data supporting the values proposed in the tables 2, 3 and 4 contain very little data that may be useful in creating simulations, scenarios or additional analyses. What is more, this underlying data bearing on the disclosure of certain individuals' salaries can only be provided on a confidential basis.

Considering the limited usefulness of having access to this sensitive information, and in light of the information provided in the response to question 1.1 of the Régie's request for information no. 5, Gaz Métro submits that providing that information is not desirable.

11.2. Where the year-one values in these tables are expressed as a range from zero to some maximum, does Gaz Métro mean that some (but not all) new customers will require these costs? If so, please explain why some new customers will not require each of these costs, and what percentage of new customers Gaz Métro expects will impose each of these costs. If Gaz Métro interprets the range in some other manner, please explain.

Response:

Gaz Métro refers you to the response to question 1.1 in the Régie's request for information no. 5, Gaz Métro-8, Document 1.

11.3. Where the year-2+ values in these tables are expressed as a range from zero to some maximum, does Gaz Métro mean that some (but not all) new customers will require these costs each year, or that all customers will require the maximum cost in each year, or something else? Please explain why some new customers will not require each of these costs, or why new customers will not require these costs, and what percentage of new customers Gaz Métro expects will require each of these costs in the average year. If Gaz Métro interprets the range in some other manner, please explain.

Response:

Gaz Métro refers you to the response to question 1.1 of the Régie's request for information no. 5, Gaz Métro-8, Document 1.

11.4. Please explain how Gaz Métro proposes to use the values expressed as a range from minimum to maximum, such as

- the lines under "Meters inspection and maintenance costs" for each table;
- Table 2 line 15, and lines 8, 13 and 14 in « Black & Veatch Revised»;
- Table 3 line 15; line 11 for "Gaz Métro As Proposed" and lines 5, 13 and 14 in "Black & Veatch Revised".
- Table 4 lines 13 and 14 in "Black & Veatch Revised".

Response:

(a) The characteristics specific to each customer will be used to establish their marginal cost of long-term service delivery. See the explanations provided in the response to question 1.1 of the Régie's request for information no. 5, Exhibit B-0196, Gaz Métro-8, Document 1.

(b) "Table 2, line 15": Please see the explanations provided in the response to question 1.1 of the Régie's request for information no. 5, Exhibit B-0196, Gaz Métro-8, Document 1.

"Table 2, line 8": For details on the application of the proposed methodology, please see the explanations provided in the response to question 1.1 of the Régie's request for information no. 5, Exhibit B-0196, Gaz Métro-8, Document 1.

Please see also the response to question 6.1 of this request for information regarding the cost to handle a standard client call.

"Table 2, lines 13 and 14": For details on the application of the proposed methodology, please see the explanations provided in the response to question 1.1 of the Régie's request for information no. 5, Exhibit B-0196, Gaz Métro-8, Document 1.

(c) "Table 3, line 15": Please see the explanations provided in the response to question 1.1 of the Régie's request for information no. 5, Exhibit B-0196, Gaz Métro-8, Document 1.

"Table 3, line 11": Please see the explanations provided in the response to question 1.1 of the Régie's request for information no. 5, Exhibit B-0196, Gaz Métro-8, Document 1.

"Table 3, line 5": The minimum is equal to the maximum for this line. This cost is included in year 1 for each client.

"Table 3, lines 13 and 14": For details on the application of the proposed methodology, please see the explanations provided in the response to question 1.1 of the Régie's request for information no. 5, Exhibit B-0196, Gaz Métro-8, Document 1.

(d) "Table 4, lines 13 and 14": For details on the application of the proposed methodology, please see the explanations provided in the response to question 1.1 of the Régie's request for information no. 5, Exhibit B-0196, Gaz Métro-8, Document 1.

11.5. Would Gaz Métro use the minimum values, the maximum values, or something in between?

Response:

The characteristics specific to each customer will be used to establish their marginal cost of long-term service delivery. See the explanations provided in the response to question 1.1 of the Régie's request for information no. 5, Gaz Métro-8, Document.

12. Source:

R-3867-B-0145, Overcast Evidence (Gaz Métro-6, Document 2), p. 7.

Preamble:

- "Gaz Metro's proposed approach to revising how marginal operating expenses are applied to its profitability analysis for new customers is documented in the document *Study on Long-term Marginal Costs of Service Delivery Applied to Profitability Analysis* (2015 Rate Case - R-3879-

2014). Gaz Metro defines the "marginal cost of service delivery" as the set of costs that can be linked to a customer once he or she has agreed to become a customer of Gaz Metro. It includes the marginal costs the customer creates and the associated internal costs for the maintenance of its facilities and the services that are directly supplied."

Questions:

12.1. Please provide the "Study on Long-term Marginal Costs of Service Delivery Applied to Profitability Analysis (2015 Rate Case - R-3879-2014)," along with all workpapers.

Response:

The study in question here is provided in Schedule A to the exhibit Gaz Métro-6, Document 1, a translation of which was filed in this matter by the CFIB as C-FCEI-0057. Initially, this study was filed by Gaz Métro in the 2015 rate case, where it was named Gaz Métro-17, Document 4.

12.2. Please explain whether Gaz Métro includes in the "marginal cost of service delivery" the average or expected cost of shared services and equipment that may be required by increased number of customers or peak loads, but would not be required just by the addition of this customer. If those costs are not included, please explain why.

Response:

Shared Services costs do not vary with customers or capacity and hence are not marginal O&M.

13. Source:

R-3867-2013, B-0145, Overcast Evidence (Gaz Métro-6, Document 2), p. 13.

Preamble:

- Table 5 (Line Extension Research Peer Group)

Questions:

13.1. Please provide the source documents from which the data in Table 5 were derived.

Response:

The data is sourced from the Pipeline and Hazardous Material Safety Administration (PHMSA) Gas Distribution Annual Data: <http://www.phmsa.dot.gov/pipeline/library/data-stats/pipelinemileagefacilities>.

An Excel spreadsheet is filed as Appendix 2.

14. Source:

R-3867-2013, B-0145, Overcast Evidence (Gaz Métro-6, Document 2), p. 16-30.

Preamble:

- Table 6 (Line Extension Policies with Dollar Allowance Method) has illegible cells.
- The source documents from which Tables 6, 7 and 8 and Appendix A are not provided.

Questions:

14.1. Please provide a copy of Table 6 with all cells legible.

Response:

Please refer to Appendix 1 of the present document.

14.2. Please provide the source documents from which Tables 6, 7 and 8 and Appendix A were compiled.

Response:

The data is based on line extension policies for each utility listed. The information is publicly available from the utilities.

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Company	Service Extension	Main Extension
Atmos Energy - Colorado	Subscriber is responsible for the cost of the Service Line in excess of the Construction Allowance. The Construction Allowances are: 1. Residential Service - \$920.00 2. Small Commercial Service - \$1,540.00 3. Commercial Service - \$1,540.00	Subscriber is responsible for the cost of the Service Line in excess of the Construction Allowance. The Construction Allowances are: 1. Residential Service - \$500.00 2. Small Commercial Service - \$2070.00 3. Commercial Service - \$2,590.00
Black Hills Energy - Colorado	The construction cost for Service Lines shall include the Company's estimated cost to install the service line (see Appendix for Construction Allowances)	The construction cost of Main Extension shall include the Company's estimate of the combined costs of all facilities necessary to the main extension and/or reinforcement, including satisfactory rights-of-way. (see Appendix for Construction Allowances)
NorthWestern Energy - Montana	Residential: \$900 construction allowance CII: \$0.355 time the Utility's estimate of the annual Therm consumption of the Customer A main extension cost exceed the free limit specified above, the Utility will require the applicant for service to pay the difference between the cost of the project and the main extension allowance.	
Source Gas Distribution LLC - Colorado	Company shall make such reasonable, economically viable extensions of the Mains and/or Service Lines consistent with the construction allowance. The Regular Construction Allowance for new Main and/or Service Line extensions offered to new Customers within the service territory for Mains and/or Service Lines will be limited to: o Base Rate Area 1: \$790.00 plus \$2.40 per therm in excess of 757 annual therms o Base Rate Area 2: \$830.00 plus \$2.20 per therm in excess of 760 annual therms	
Source Gas Distribution LLC - Wyoming	The Regular Incentive Allowance for main extensions and new service line installations is \$985. Extra Incentives for New Service Lines/Main Extensions: Up to \$2,000 for Customers selecting the \$20 per month Extra Incentive Allowance Charge, Up to \$3,000 for Customers selecting the \$30 per month Extra Incentive Allowance Charge, Up to \$4,000 for Customers selecting the \$40 per month Extra Incentive Allowance Charge, Up to \$5,000 for Customers selecting the \$50 per month Extra Incentive Allowance Charge.	
Source Gas Distribution LLC - Nebraska	The Regular Construction Allowance for new or replacement service lines and/or main extensions shall be up to \$1,210 Such person or firm shall pay any costs (including installation) in excess of \$1,210: Up to \$2,000 for the \$20 per month Extra Construction Allowance Charge, Up to \$3,000 for the \$30 per month Extra Construction Allowance Charge, Up to \$4,000 for the \$40 per month Extra Construction Allowance Charge, or Up to \$5,000 for the \$50 per month Extra Construction Allowance Charge.	

APPENDIX 2: RESPONSE TO QUESTION 13.1

This Appendix is only filed in Excel format.