

**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.
- 1.2. Please explain the meaning of the "Total" line in the table on page 3 of the 2016.10.04 material.
- 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.
- 1.4. Please provide the derivation of each value in the tables on the following pages, in spreadsheets with all formulae and supporting data:
  - Page 3 of the 2016.10.04 section.
  - Pages 6, 7 and 9 of the 2014.10.08 section.
  - Appendix 1 of the 2014.10.08 section.
- 1.5. Please provide the units of the tables on pages 6, 7 and 9 of the 2014.10.08 section.
- 1.6. Please provide the derivation of the \$157 value.
- 1.7. Please provide the units of the \$157 value. Is this value per customer or per m<sup>3</sup>? Is it an annual value or a present value?
- 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).

**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.
- 2.2. Please provide any studies of the marginal cost of serving additional load, prepared by or for Gaz Métro, 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.
- 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.
- 2.5. Please provide the cost of each of the load-related projects identified in the previous question.

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

**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.
- 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.

**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.
- 4.2. Please provide Gaz Métro’s Distribution Gas Supply expenses for each year 1995–2015.
- 4.3. Please provide the volume of gas sold by Gaz Métro for each year 1995–2015.
- 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.
- 4.5. Please provide Gaz Métro’s estimate of its design peak day delivery requirements for each year 1995–2015.
- 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.
- 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.

**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.

- 5.2. Please provide the annual cost of adding a meter reader, including salary, benefits, overheads, vehicle and other costs.
- 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.
- 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.
- 5.5. Please provide the number of meter readers that Gaz Métro employs in each meter-reading area or district.

**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".
- 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?
- 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?

**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.
- 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?

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

**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.
- 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.
- 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.

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

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

**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.
- 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.

**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.

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