

**DEMANDE DE RENSEIGNEMENTS N^o 1 D'OPTION CONSOMMATEURS (OC) À
SOCIÉTÉ EN COMMANDITE GAZ MÉTRO (GM)**

**DEMANDE RELATIVE AU DOSSIER GÉNÉRIQUE PORTANT SUR
L'ALLOCATION DES COÛTS ET LA STRUCTURE TARIFAIRE DE GAZ MÉTRO**

R-3867-2013 PHASE 3B

**GAZ METRO'S PROFITABILITY ANALYSES FOR SYSTEM EXPANSION
PROJECTS**

1. Reference: i) Exhibit B-0178, GM-7, Doc 1.

Questions:

Regarding conceptualization of costs included in the profitability analysis:

- 1.1 Please identify any investments beyond the network itself, which are included as a cost of a network addition in Gaz Metro's profitability analyses.
- 1.2 Specifically identify the incremental amounts of new distribution capacity and transmission capacity away from the network addition that are included.

2. Reference: i) Exhibit B-0178, GM-7, Doc 1.

Questions:

Regarding incremental system costs which may affect profitability of network extensions and which may be part of long-run marginal costs:

- 2.1 Please provide the amount of new distribution main investment, by size and/or pressure level and material (plastic or steel), in km and dollars, installed from 2006-2015 recorded and 2016-2020 forecast. Divide mains into (a) those allowing the connection or conversion of a number of new customers (part or all of a network expansion); (b) those allowing the connection or conversion of individual new customers (individual infill within existing network); (c) those increasing in capacity or reliability for serving customers at points other than network expansions or new customer connections; and (d) other main investments.
- 2.2 Please provide the amount of new distribution measuring and regulating stations (number and dollars), installed from 2006-2015 recorded and 2016-2020 forecast.

- 2.3 Please provide the amount of distribution mains replacing existing mains, by size and/or pressure level and material (plastic or steel), in km and dollars, installed from 2006-2015 recorded and 2016-2020 forecast.
- 2.4 Please provide the amount of distribution measuring and regulating stations replacing existing stations (number and dollars) installed from 2006-2015 recorded and 2016-2020 forecast.
- 2.5 Please provide the amount of new transmission investment (including km of mains and dollars) installed from 2006-2015 recorded and 2016-2020 forecast. Divide investments into (a) those allowing the connection of new service regions and/or new very large customers; (b) those increasing in capacity or reliability for serving existing customers and regions.
- 2.6 Please provide the average cost per meter of installing new distribution mains at each diameter up to 25 cm, and separately for steel and plastic mains, for any diameters where new steel mains are more than 5% of the meters of main installed of that diameter.

SYSTEM LOADS AFFECTING LONG-RUN MARGINAL SYSTEM EXPANSION COSTS

- 3. Reference:** i) **Exhibit B-0178, GM-7, Doc 1.**

Questions:

Regarding system loads that may affect long-run marginal system expansion costs:

- 3.1 Please identify the system planning capacity requirements (i.e., peak demand) for all customers (stating separately the peak demand for transmission and for distribution) by rate class in each year from 2006-2015 recorded and 2016-2020 forecast.
- 3.2 Please identify the amount of commodity sales provided to all customers (including those served at both distribution and transmission) by rate class in each year from 2006-2015 recorded and 2016-2020 forecast.
- 3.3 Please provide the incremental sales by rate class associated with transmission installed in and after 2006 to connect new service regions and new customers.
- 3.4 Please provide the number of new customer connections by rate class, and within each block of rate D1, divided between residential and business customers, for each year from 2010-2016.

LONG-RUN MARGINAL OPERATION COSTS THAT ARE NOT DIRECT COSTS OF CUSTOMER CONNECTION

- 4. References:**
- i) **Exhibit B-0178, GM-7, Doc 1**
 - ii) **Exhibit B-0145, GM-6, Doc 2.**

Questions:

Regarding potential elements of long-run marginal operating costs and other overhead costs that are not direct costs of a customer connection identified in Phase 3A:

- 4.1 Please provide or identify the lead-lag study used to develop cash working capital from Gaz Metro's last rate case.
- 4.2 Please provide the number of staff and costs of the staff responsible for administering and marketing new customer connections in each year from 2010-2016. Identify the amount of these costs that is expensed, and the amount that is capitalized and included in the cost of the new connection. Break down staff costs and non-staff costs of acquiring and providing service to these new customers, into costs for residential and business customers.
- 4.3 Please provide company-wide labor expenses in 2012-2016.
- 4.4 Please provide corporate human resources expenses in 2012-2016.

UNIT COSTS OF NEW CUSTOMER CONNECTIONS AND NETWORK EXPANSIONS

- 5. References:**
- i) **Exhibit B-0178, GM-7, Doc 1**

Questions:

Regarding unit costs of new customer connections and network expansions:

- 5.1 What is the average number of meters of main per new residential customer (by diameter) installed as part of new residential customer and network connections in each of the last five years (i.e., 2011-2015 inclusively)?

- 5.2 What is the average number of meters of main per new business customer (by diameter) installed as part of new business customer and network connections in each of the last five years (i.e., 2011-2015 inclusively)?
- 5.3 Please provide the number of services installed in each year from 2006-2015 recorded and 2016-2020 forecast by rate class.
- 5.4 Please provide the average cost of a new service by rate class in current dollars, in each year from 2006-2015 recorded and 2016-2020 forecast. Divide residential into single-family and multi-family.
- 5.5 Please provide the number of meters installed in each year from 2006-2015 recorded and 2016-2020 forecast by rate class.
- 5.6 Please provide the average cost of a meter by rate class in current dollars.
- 5.7 What is the average annual energy sales (expected under normal weather conditions) and peak demand per new residential customer over the last five years? Divide into single-family and multi-family if available. If this data is not available for residential customers, please provide the average annual energy sales (expected under normal weather conditions) and peak demand for the D1 rate block (and for each of the sub-blocks (“sous paliers”) of D1, including D1.1a/b, D1.2, etc.).
- 5.8 What is the average cost of a new customer connection per residential customer in each of the last five years? Divide into main, service and meter/regulator, and divide into single-family and multi-family if applicable. If this data is not available for residential customers, please provide the average cost of a new customer connection per customer in each of the last five years for the D1 rate block (and for each of the sub-blocks (“sous paliers”) of D1, including D1.1a/b, D1.2, etc.).
- 5.9 Please identify the total number of customers on the system by rate class in each year from 2006-2015 recorded and 2016-2020 forecast, so that an average number of dollars per customer may be calculated for certain activities.

PROFITABILITY OF NETWORK ADDITIONS IN RECENT YEARS

- 6. Reference:** i) **Exhibit B-0220, GM-7, Doc 2, Tables 1 and 2, pp. 7-8.**

Questions:

Regarding the profitability of individual and aggregate network additions made in recent years, related to Tables 1 and 2 in Reference (i):

- 6.1 For each network addition made in and after 2012, please provide (i) the cost of the network addition; (ii) the number of customers (divided into residential and non-residential); (iii) annual revenues in the year after the network was installed; (iv) the number of customers and annual revenue added to that network addition (as a result of densification) in each year after installation. Also, identify those specific additions, which were undertaken at the time of street repaving and those undertaken for new industrial parks. If this information is too burdensome, provide data on a sample of 50 extensions in each year and answer part 6.2.
- 6.2 For each type of residential and business extension (SMA, other extensions, extensions caused by street repaving, and extensions caused by industrial park development) please provide the following amounts in total for extensions in each year in and after 2012: (i) number of customers connecting to each type of extension immediately and annual revenues in the year after the network was installed; (ii) the number of customers and annual revenues added to that network addition (as a result of densification) in each year after the installation to the present (i.e., 2013-2016 additions for connections installed in 2012, 2014-2016 additions for connections installed in 2013, etc.); and (iii) the number of customers projected to connect to each type of extension installed in 2012 and each of the subsequent years in the five and ten year time horizons.
- 6.3 Please provide the total number of new residential customers added to the Gaz Metro system in each year from 2009-2015 and estimate the number of new residential customers connected in each year (i) who converted space heating and/or water heating from electricity; (ii) who converted space heating from fuel oil; (iii) who are new residential customers who never had space heating with other fuels.
- 6.4 Please estimate the number of new residential customers connected in each year from 2009-2015 who have each of the following gas-fired end-uses installed (i) space heating; (ii) water heating; (iii) clothes drying; (iv) oven/stove; (v) gas fireplace; (vi) gas barbecue; and (vii) any other gas appliances and devices.
- 6.5 Please estimate the number of new residential customers connected in each year from 2009-2015 who have the following combinations of gas-fired end-uses installed (i) space heating without any other gas end use; (ii) space heating and water heating, with or without other gas end uses; (iii) space heating without water heating but with one or more other gas end-uses; (iv) water heating without space heating or any other gas end-uses; (v) water heating without space heating with one or more other gas end uses; and (vi) one or more other gas end uses without both space heating and water heating.
- 6.6 Please provide any statistics regarding relative profitability of network extensions and/or individual extensions as they are related to the specific end-uses of residential customers attaching to the network.

METHODOLOGY FOR CALCULATION OF THE PROFITABILITY OF SPECIFIC PROJECTS

- 7. References:**
- i) Exhibit B-0178, GM-7, Doc 1**
 - ii) Exhibit B-0220, GM-7, Doc 2**

Questions:

Regarding the methodology for making calculations of profitability for specific projects:

- 7.1 Please provide a representative calculation of profitability for an Extension SMA and another more profitable extension for each of the business and residential markets showing all input assumptions and annual outputs (i.e., customers, volumes, and revenues), and if this calculation is developed on a spreadsheet, please provide the spreadsheet with working cells.
- 7.2 Please provide and explain the basis for the following input assumptions regarding the annual cost of network additions used in the profitability analysis of customer connections and networks: (i) the capital structure and return by capital component (debt, common stock, preferred stock); (ii) the useful life of the extension for purposes of analysis; (iii) depreciable lives and net salvage, and the resulting depreciation rates for mains, services, and meters; (iv) property tax base and rate; (v) income tax rates; (vi) accelerated tax depreciation parameters; (vii) the ratemaking treatment of tax depreciation; (viii) inflation rates of future capital and O&M expenses; and (ix) the discount rate.
- 7.3 Please provide actual inflation factors for gas capital spending and gas O&M spending for 2005-2016 recorded and projected inflation factors for 2017-2020.
- 7.4 Please provide information as to how Gaz Metro calculates revenues received from customers in the profitability analysis. This information should include (but not be limited to) (i) the customer charges and volumetric rates included in the calculation; and (ii) assumed rates of escalation of Gaz Metro customer charges and volumetric rates.
- 7.5 If revenues for any rate components in addition to distribution are included in Gaz Metro's profitability analysis, please identify those components. Specifically, provide the current rates and rates of future escalation, and identify any incremental costs for these non-distribution rate components that may offset some or all of the revenue.
- 7.6 Please provide internal engineering manuals or other documentation regarding the estimation of gas loads from new customers for use in the profitability analysis.
- 7.7 Does Gaz Metro include the \$300 connection charge in Tariff Section 17.1.1.1 for new residential connections as revenue in its profitability analysis? If not, why not.

- 7.8 Is the \$300 connection charge accounted for by Gaz Metro (i) as revenue in the year received or (ii) as a contribution in aid of construction that offsets gross plant, or (iii) as some combination of the two?
- 7.9 Can the spreadsheet or other calculation method used by Gaz Metro identified in response to Question 7.1 also be used to analyze a shorter life of gas service that might arise due to future environmental regulations? If so, explain how; if not, why not.

8. Reference: i) Exhibit B-0178, GM-7, Doc 1, pp. 8-9

Questions:

Regarding the methodology for making calculations of profitability for specific projects:

- 8.1 Please provide an estimate of the percentage savings when a gas network addition is made at the time of street repaving relative to the cost if done at a different time than street repaving.
- 8.2 Please provide documentation supporting the statements regarding refusal of municipalities to allow Gaz Metro to install new mains and services in recently repaved areas.
- 8.3 Please provide the number of new customers connected to the Gaz Metro system in each year from 2006-2015 in areas where gas was installed at the time of repaving.

9. Reference: i) Exhibit B-0178, GM-7, Doc 1, pp. 8-9.

Questions:

Regarding the special treatment of industrial park projects:

- 9.1 Please provide an estimate of the percentage savings when a gas network addition is made at the time of industrial park development relative to the cost if done at a different time.

10. Reference: i) Exhibit B-0220, GM-7, Doc 2, p. 8, lines 1-12

Questions:

Regarding Reference (i) and the 4.48% additional profitability of network projects due to increased gas consumption by customers who did not immediately connect to the network but connected later (i.e. densification):

- 10.1 Please provide documentation of the costs and revenues received over time from the individual projects from the 2009-2011 Fiscal Years that were analyzed to reach this conclusion.
- 10.2 Please explain why Gaz Metro believes that this analysis of business customers provides a reasonable estimate for residential customers.

11. Reference: i) Exhibit B-0220, GM-7, Doc 2, Annexe 1

Questions:

- 11.1 Please explain why the sales volumes for residential and small business customers in Year 1 were, in most cases, higher than the cumulative sales volumes and cumulative revenues in Year 2. What caused the decline?
- 11.2 For each year of the development plans described in the spreadsheets (i.e. 2008-2009 to 2015-2106) please provide the rates used to calculate residential revenues.