

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

**MARGINAL COST OF SERVICE THEORY:
CAPITAL COSTS AND THE DETERMINATION OF LONG-RUN MARGINAL COSTS**

- 1. Reference: i) Exhibit B-0145, GM-6, Doc 2, p. 2.**

Question:

- 1.1 Please explain why capital-related costs are not included in the methodology to determine long-run marginal costs.

Réponse :

L'évaluation du coût attribuable aux investissements effectués dans le cadre d'un projet de construction ne fait pas l'objet de la présente étude. La proposition actuelle ne vise qu'à établir la portion des coûts reliée aux dépenses d'opération lors d'un projet de construction. L'analyse globale de la rentabilité d'un projet, incluant les coûts relatifs aux investissements, sera cependant traitée dans la phase 3B du présent dossier qui portera sur la Méthodologie d'évaluation de la rentabilité des projets d'extension de réseau (B-0178 Gaz Métro-7, Document 1).

- 2. Reference: i) Exhibit B-0145, GM-6, Doc 2, p. 2. Preamble:**

The Black and Veatch study (reference (i)) states as follows:

Determining the marginal investment cost of the customer connection is straight forward. The marginal cost of other facilities is not easily calculated because plant additions are lumpy. Since the general main extension may be used by more than the added customer, the marginal cost of the new customer is less than the full cost of the general plant addition. The general facilities are caused by this new customer plus all future customers over the life of the new facilities hence the term lumpy investment.

Question:

- 2.1 Please explain why it is more accurate to assume that the capital-related cost is zero because it is lumpy and difficult to forecast?

Réponse :

There is no assumption that capital related costs are zero. The assignment was only to estimate marginal O&M costs.

O&M COSTS EXCLUDED FROM GM'S STUDY ON MARGINAL COSTS

3. Reference: i) Exhibit B-0145, GM-6, Doc 2, p. 2.

Questions:

- 3.1 What is the frequency (i.e., time interval) required of GM for “mandated safety programs such as leak surveys” on service drops and local low-pressure mains installed to connect new customers? In other words, how often are such inspections carried out?

Réponse :

- 3.2 What is the cost per service for “mandated safety programs such as leak surveys” on (a) service drops and (b) local low pressure mains installed to connect new customers?

Réponse :

CAPITAL COSTS EXCLUDED FROM GM'S STUDY ON MARGINAL COSTS

- 4. Reference:**
- i) Exhibit B-0144, GM-6, Doc 1**
 - ii) Exhibit B-0145, GM-6, Doc 2.**

Questions:

To enable the estimation of future marginal capital-related costs, not undertaken in either the Black and Veatch study (reference (ii)) or the Gaz Metro study (reference (i)), please provide the following data on capital spending and billing or costing determinants. When dollars are requested, provide in current and real dollars.

- 4.1 Please provide the amount of new distribution mains, by size or pressure level, in km of mains and dollars, installed from 2006-2015 recorded and 2016-2020 forecast. Divide mains between (a) those allowing for the connection of new customers; and (b) those increasing capacity or reliability for serving existing customers.

Réponse :

Comme mentionné en réponse à la question 1.1, l'évaluation du coût attribuable aux investissements effectués dans le cadre d'un projet de construction ne fait pas l'objet de la présente étude. La proposition actuelle ne vise qu'à établir la portion des coûts reliée aux dépenses d'opération lors d'un projet de construction. L'analyse globale de la rentabilité d'un projet, incluant les coûts relatifs aux investissements, sera cependant traitée dans la phase 3B du présent dossier qui portera sur la Méthodologie d'évaluation de la rentabilité des projets d'extension de réseau (B-0178, Gaz Métro-7, Document 1).

Ainsi, la série de sous-questions 4.1 à 4.12, qui vise à définir le coût attribuable à la portion en capital, déborde le cadre de la présente étude en phase 3A.

- 4.2 Please provide the amount of new distribution measuring and regulating stations, in number and dollars, installed from 2006-2015 recorded and 2016-2020 forecast.

Réponse :

Veillez vous référer à la réponse à la question 4.1.

- 4.3 Please provide the amount of distribution mains replacing existing mains, by size or pressure level, in km of mains and dollars, installed from 2006-2015 recorded and 2016- 2020 forecast.

Réponse :

Veillez vous référer à la réponse à la question 4.1.

- 4.4 Please provide the amount of distribution measuring and regulating stations replacing existing stations, in number and dollars, installed from 2006-2015 recorded and 2016- 2020 forecast.

Réponse :

Veillez vous référer à la réponse à la question 4.1.

- 4.5 Please provide the amount of new transmission investment, in km of mains and dollars of total investment including mains and other transmission facilities, installed from 2006-2015 recorded and 2016-2020 forecast. Divide mains between (a) those allowing the connection of new service regions and new customers; and (b) those increasing capacity or reliability for serving existing customers and regions.

Réponse :

Veillez vous référer à la réponse à la question 4.1.

- 4.6 Please identify the number of new customers connected to the system by rate class in each year from 2006-2015 recorded and 2016-2020 forecast.

Réponse :

Veillez vous référer à la réponse à la question 4.1.

- 4.7 Please identify the system planning capacity requirements for distribution customers by rate class in each year from 2006-2015 recorded and 2016-2020 forecast.

Réponse :

Veillez vous référer à la réponse à la question 4.1.

- 4.8 Please identify the amount of commodity sales for distribution customers by rate class in each year from 2006-2015 recorded and 2016-2020 forecast.

Réponse :

Veillez vous référer à la réponse à la question 4.1.

- 4.9 Please identify the system planning capacity requirements 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.

Réponse :

Veillez vous référer à la réponse à la question 4.1.

- 4.10 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.

Réponse :

Veillez vous référer à la réponse à la question 4.1.

- 4.11 Please provide the incremental sales by rate class associated with transmission installed in and after 2006 to connect new service regions and new customers.

Réponse :

Veillez vous référer à la réponse à la question 4.1.

- 4.12 Please provide the respective inflation factors for both gas capital spending and gas O&M spending for 2005-2016 recorded and 2017-2020 projected.

Réponse :

CLARIFICATION OF O&M COSTS IN GM'S STUDY ON MARGINAL COSTS

- 5. References:**
- i) **Exhibit B-0144, GM-6, Doc 1, Annexe A, Annexe 1**
 - ii) **Exhibit B-0145, GM-6, Doc 2, Table 2, p. 9.**

Preamble:

The Gaz Metro study and the Black and Veatch study (references (i) and (ii)) provide costs of certain O&M activities.

Questions:

Please provide the following information regarding the activities described in Table 2 in the Black and Veatch study (reference (ii)):

- 5.1 In what year's dollars are the unit costs expressed?

Réponse :

The unit costs are expressed in 2013 dollars.

- 5.2 For each activity in Table 2, are the unit costs expressed in dollars per customer or in some other measure of activity?

Réponse :

The unit costs are expressed in dollars per customer.

- 5.3 For each activity please provide the total number of dollars of cost associated with the activity for each of the eight columns in Table 2.

Réponse :

Gaz Métro vous réfère à la réponse à la question 1.10 de la demande de renseignements n° 1 de la FCEI, à la pièce Gaz Métro 8 Document 3.

- 5.4 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.

Réponse :

Le tableau suivant présente le nombre réel moyen de clients par classe de tarif pour les années 2006 à 2016 ainsi que le nombre projeté pour l'année 2017. Aucune projection du nombre moyen de clients n'a été effectuée pour les années 2018-2020. Il est à noter que les données réelles pour les années 2006 à 2016 sont issues de la pièce B-0085, Gaz Métro-17, Document 1, pages 4 et 5, du dossier R-3992-2016.

Nombre moyen de clients par classe de tarif	2006	2007	2008	2009	2010	2011
Tarif D ₁	164 855	168 829	172 981	177 064	180 046	183 302
Tarifs D _M et D ₃	1 625	1 670	1 690	1 712	1 684	1 588
Tarif D ₄	89	85	82	79	77	76
Total service continu	166 569	170 584	174 753	178 855	181 807	184 966
Interruptible (tarif D ₅)	204	177	165	152	149	144
Gaz d'appoint	13	11	19	20	30	22
Total	166 787	170 773	174 937	179 027	181 986	185 132

Nombre moyen de clients par classe de tarif	2012	2013	2014	2015	2016	2017
Tarif D ₁	188 684	192 283	194 940	197 236	199 850	199 728
Tarifs D _M et D ₃	187	217	250	265	268	344
Tarif D ₄	84	73	86	94	98	100
Total service continu	188 955	192 573	195 276	197 595	200 216	200 171
Interruptible (tarif D ₅)	136	135	124	101	78	79
Gaz d'appoint	15	3	2	2	2	2
Total	189 106	192 711	195 402	197 698	200 296	200 252

**DETERMINATION OF THE COST OF CUSTOMER CONNECTION AND
REVENUES**

6. Reference: i) **Exhibit B-0145, GM-6, Doc 2, Table 2, p. 9**

Questions:

To enable the comparison of the cost of customer connection, revenues received from customers, and the marginal costs estimated by Gaz Metro and the Black and Veatch study (reference (i)), please provide the following information:

6.1 Please provide the average cost per meter of installing new mains at each diameter up to a maximum of 25 cm.

Réponse :

Comme mentionné en réponse à la question 1.1, l'évaluation du coût attribuable aux investissements effectués dans le cadre d'un projet de construction ne fait pas l'objet de la présente étude. La proposition actuelle ne vise qu'à établir la portion des coûts reliée aux dépenses d'opération lors d'un projet de construction. L'analyse globale de la rentabilité d'un projet, incluant les coûts relatifs aux investissements, sera cependant traitée dans la phase 3B du présent dossier qui portera sur la Méthodologie d'évaluation de la rentabilité des projets d'extension de réseau (B-0178, Gaz Métro-7, Document 1).

Ainsi, la série de sous-questions 6.1 à 6.8, qui vise à définir le coût attribuable à la portion en capital, déborde du cadre de la présente étude en phase 3A.

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

Réponse :

Veillez vous référer à la réponse à la question 6.1.

- 6.3 Please provide the number of services installed by rate class in each year from 2006-2015 recorded and 2016-2020 forecast.

Réponse :

Veillez vous référer à la réponse à la question 6.1.

- 6.4 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 into single-family and multi-family residential if possible.

Réponse :

Veillez vous référer à la réponse à la question 6.1.

- 6.5 Please provide the number of meters installed in each year from 2006-2015 recorded and 2016-2020 forecast by rate class.

Réponse :

Veillez vous référer à la réponse à la question 6.1.

6.6 Please provide the average cost of a meter by rate class in current dollars.

Réponse :

Veillez vous référer à la réponse à la question 6.1.

6.7 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.).

Réponse :

Veillez vous référer à la réponse à la question 6.1.

6.8 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.).

Réponse :

Veillez vous référer à la réponse à la question 6.1.

COMPARATIVE ANALYSIS WITH OTHER DISTRIBUTORS

- 7. References:**
- i) **Exhibit B-0144, GM-6, Doc 1, Annexe A, Section 4, p. 8**
 - ii) **Exhibit B-0145, GM-6, Doc 2, Section 4, pp. 12-19**

Preamble:

The Black and Veatch study (reference (ii)) provides information on other utilities in the US. In the GM study (reference (i)) GM indicates that it has also surveyed three big Canadian gas

distributors to understand the methodologies used to determine their long run marginal costs. Very minimal information (10 lines) is provided about GM's survey of these Canadian distributors.

Questions:

7.1 Please indicate which Canadian distributors were surveyed in the GM study (reference (i)).

Réponse :

7.2 Please provide further information to support the conclusions reached in the GM study (reference (i)). Specifically, elaborate further on the conclusions that (i) the three large distributors use a method similar to the one used for their cost of service allocation; (ii) they only use costs allocated as a function of the number of customers; and (iii) the result from their methodology is closer to average cost than marginal cost.

Réponse :

7.3 Please provide similar information for the three large Canadian distributors from reference (i) to that provided for the US utilities in the Black and Veatch document (reference (ii)). Specifically, provide information similar to that in Tables 5, 6, 7 and 8 (as applicable), and a similar Comparative Analysis to that found on pp. 13-15 of reference (ii).

Réponse :