ÉNERGIR, L.P.'S RESPONSES (ÉNERGIR) TO REQUEST FOR INFORMATION NO. 12 FROM THE RÉGIE DE L'ÉNERGIE (THE RÉGIE) RELATING TO THE GENERIC FILE ON COST ALLOCATION AND ÉNERGIR'S RATES STRUCTURE

Costs - Overheads

1. References : (i) Exhibit B-0278, p. 27;
(ii) Exhibit B-0278, p. 37.

Preamble:

(i) *Table 4 – Comparison of Gaz Métro's Process with Peer Group Utilities*
[…]

In the "*Peer Group Methods"* column, in the table "*Capital-Related Cost Parameters"*:

« *Some overhead costs can be included by project or at a portfolio level for direct overhead associated with the capital investment (e.g., warehouse or delivery loaders, fleet services and fuel, construction labor loaders).* »

(ii) « ***Indirect General Capitalized Development Costs*** *– other costs that are incurred by Gaz Métro to connect new customers to its gas distribution system that are common to its overall new customer development activities.*

- *Capitalized General Overhead Expenses*
- *Capitalized General Contractors Fees*

These types of capital-related costs are incurred by Gaz Métro on annual basis and are fixed for a certain range of projects that are undertaken by year so they do not change directly based on the number of new customers connected in that year. In other words, these costs are not related to any particular single project. As a result, Black & Veatch recommends that it is reasonable and appropriate to assign these costs to new customers on a project portfolio basis only because they are indirect common costs that are incurred by Gaz Métro to support the entirety of its development activities for all new customers. » [Our underlining]

Requests:

1.1 Please confirm the Régie's understanding that Énergir's marking exercise of comparable entities does not support the assertion that all are considered as indirect costs (or overheads) in the overall portfolio of extension projects, i.e. the development plan.

Answer:

Black & Veatch

As highlighted in the Black & Veatch report (B-0278), there is a wide range of methods employed by the Peer Group utilities and there is a clear distinction between the system extension policies of gas utilities in Canada compared to those of gas utilities in the U.S. in terms of the degree of complexity, specificity and managerial flexibility associated with their economic tests, policies and practices.

The Canadian gas utilities apply much more analytical rigor, specificity, and detail to the system expansion evaluation process than U.S. gas utilities typically do. Black & Veatch found that the Canadian gas utilities in the Peer Group utilize system extension practices that are largely driven by the views and precedents of the particular provincial regulator, which reflect processes that are typically more comprehensive, well-defined and prescriptive than the processes used by gas utilities in the U.S.

As detailed in Section 4 of Black & Veatch report (B-0278), the current methods employed by Énergir, and the methods under consideration, are well within the bounds set by the common characteristics of the Peer Group utilities. Further, there are a number of parameters in Énergir's current IRR calculation model that are in close alignment with the Peer Group.

As mentioned in the Black & Veatch report (B-0278) and in the answer to question 5.3 (B-0282), in Ontario, based on the findings of the Ontario Energy Board in its E.B.O. 188 Decision (issued in 1998), gas utilities are required to include common elements for estimating capital costs, including:

- An estimate of all costs directly associated with the attachment of the forecasted customer additions (including distribution mains, customer stations, distribution stations, land, and land rights);
- An estimate of the incremental overheads applicable to distribution expansion at the portfolio level (emphasis added).

Thus, Union Gas Limited and Enbridge Gas Distribution consider the incremental overheads applicable to distribution expansion at the portfolio level. However, as indicated in the answer to question 5.3 (B-0282), in particular circumstances, specific overhead costs may be assigned to certain projects when they are directly attributable to them and significant.

1.2 If so, considering that there is no established practice for comparable entities to consider overhead costs in the overall portfolio of all extension projects, please justify why it is *"reasonable"* to propose it specifically for *Énergir*.

Answer:

Black & Veatch

As mentioned in the previous response, Union Gas Limited and Enbridge Gas Distribution consider the incremental overheads applicable to distribution expansion at the portfolio level.

Moreover, to conduct a profitability analysis, utilities must identify costs that would vary with a change in the output (the "relevant costs"). Within the context of development projects, the output is the number of new customers being connected to the utility's gas system by the development project. In other words, if a development project induces new costs, those incremental costs should be taken into account in the profitability analysis. If the revenues generated by the project are higher than the incremental costs incurred by the project, the project will induce decreases in gas rates of all customers.

Including non-relevant costs in the profitability analysis could lead the utility to create an imbalance between existing and new customers, and to lose the opportunity to achieve economies of scale and scope from the addition of the new customers.

As long as the incremental revenues from a new customer to be served by the gas utility can recover, at a minimum, the directly attributable costs of the proposed new connection to the utility's gas distribution system, any revenues above that minimum level will provide a positive contribution to the recovery of the gas utility's fixed costs that are common to the specific activities and functions of the gas utility's development efforts to add new customers and to continue to serve existing customers.

Thus, as general overhead costs are fixed for a certain range of projects done each year, those costs should be considered only at a portfolio level when the profitability of all the development activities is evaluated. If these indirect costs are allocated project by project, some projects taken individually could not meet the profitability index criteria. This situation would result in the utility foregoing an opportunity to take advantage of economies of scale and scope - missing an opportunity to decrease rates for its existing customers. Table 5 and Table 6 of the Black & Veatch report (B-0278, Gaz Métro-7, Document 5, p.32) illustrate this outcome.

Costs - Contractor overheads

2. References: (i) Exhibit B-0286, p. 8, answer to question 2.6;
(ii) Exhibit B-0278, p. 26.

Preamble:

(i) *"**2.6** Please elaborate on the nature of the costs included in contractor overheads. If labour costs are included, please indicate the tasks performed by this manpower.*

Answer:
All fixed costs necessary to carry out the General Contract (scope of work: "The works consist of but are not limited to the installation, and/or replacement of the main line of classes below 4,000 kPa and/or building connections within territorial boundaries, and any related development tasks for the improvement and integrity of the network in order to serve Gaz Métro customers with natural gas") must be included in maintenance costs (contractor overheads) The Contractor shall not provide any amount related to the fixed costs in the Service Sheets provided for the performance of the Work (price schedule submitted during the call for tenders according to the different nature of the work). The contractor overhead expenses provided for in the General Contract, and invoiced quarterly, consist of two main categories, namely operating expenses and salaries.

In the case of fixed operating expenses, they are detailed as follows:

- *Contractor expenses relative to the place of business (rent, electricity, heating, maintenance, insurance, property taxes, telephony, computer, etc.);*
- *Costs related to storage areas;*
- *Depreciation (buildings, computer equipment, rolling stock (trucks) specialized equipment, etc.);*
- *Lease of long-term equipment (rolling stock);*
- *Costs relating to the training of workers in gas activities;*

In the case of fixed wages, there are four categories:

- *Management salaries (president, VP, operations director, project manager, others);*
- *Field operations salaries (superintendent, general foreman, pipe-fitter foreman, project manager, planner, health and safety coordinator);*
- *Office employee salaries (clerk, accounting, billing, measurement, quality plan, ISO);*
- *Yard employee salaries (dispatcher, stock keeper, yard workers)."* [Our underlining]

(ii) « *The Capitalized General Contractors Fees are an agreed amount paid to Gaz Métro's primary contractors to cover the Contractors' G&A expenses. The rate for 2017 is currently allocated at 27.1%. Neither the Capitalized General Expenses nor the Capitalized General Contractors Fees varies directly based on the number and size of Gaz Métro's development projects.* » [Our underlining]

Requests:

2.1 Please confirm that the total expected fixed costs in the General Contract include, in accordance with the scope of corresponding works described in the reference (i) a provision for carrying out work other than the Network Development work.

Answer:

Énergir confirms that all fixed costs cover all activities carried out and paid via the general contract, i.e., for both the carrying out of development work and network improvement work.

2.2 If yes, please confirm that the rate of 27.1% relating to contractor overheads is an overall rate resulting from the fixed costs needed to carry out both Network Development and Improvement work.

Answer:

Énergir confirms that the rate of 27.1% of contractor overheads results from fixed charges charged by the contractors, for both network development and network improvement work.

3. References: (i) Exhibit B-0286, p. 11, answer to question 2.16;
(ii) Exhibit B-0286, p. 30, answer to question 11.4.

Preamble:

(i) " **2.**16 *For a given contractor, how and on what basis are the contractor overheads established at the beginning of the year?"*

Answer:
The contractor overheads are not established at the beginning of the year. In fact, at the time of call for tenders to the price schedule, the Contractor submits the annual amount of maintenance

costs related to its gas operations which it evaluates by territory. The only possible annual adjustment during the contract (in addition to annual indexing) is explained in question 2.1" [Our underlining]

(ii) "***11.4*** *Please explain what the 27.1% rate is applied to?" How is this rate established?*

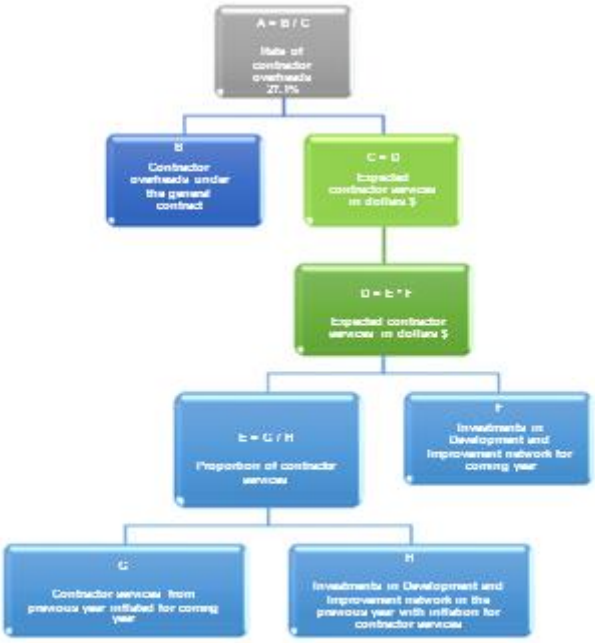
Answer:

The "Contractor Overheads" rate is applied to "Contractor Services" amounts included in the investments in pipes and connections. The "Contractor Services" represents all direct costs incurred by contractors to carry out a project.

The "Contractor Overheads" rate represents the rate to apply (during the profitability analysis) to "Contractor Services" from the current year to cover the amount of "Contractor Overheads" payable established in the General Contract." [Our underlying]

Here is how the rate is established." [...].

In response to question 11.4, Énergir shows a diagram presenting the calculation of the Contractor Overheads rate.

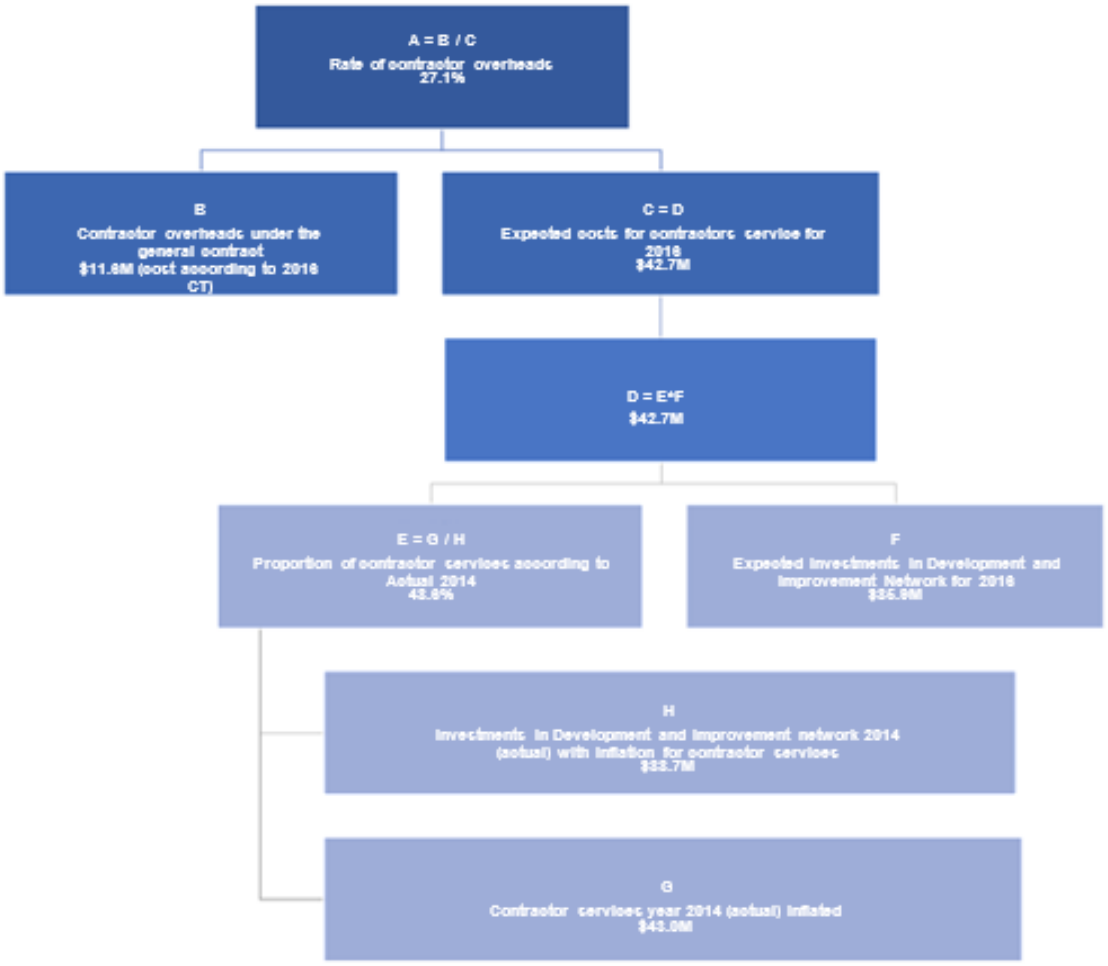


Requests:

3.1 Please explain the calculation of the 27.1% Contractor Overheads rate for 2017 reflected in the diagram in reference (ii), using a numerical example involving the 2016 data to determine the 2017 rate.

Answer:

The overall rate of 27.1% was calculated to be used for the first time in the 2016 fiscal year. Since the inputs in the calculation vary every year, this overall Contractor Overheads rate is variable. To prevent volatility and a change in rate each year, Énergir maintained the rate used in 2016 for the 2017 fiscal year, i.e., a rate of 27.1% The calculation to set the rate at 27.1% is as follows:



3.2 Please indicate how the territorial variation of Contractor Overheads is taken into account in the overall rate of 27.1% applied to *"Contractor Services"* of all projects.

Answer:

The contractor overheads corresponds to the annual amount of maintenance costs linked to gas operations of each contractor, which they evaluate by territory. For example in the diagram included in the answer to question 3.1, the Contractor Overheads amount is $11.6M. The Contractor Overheads cost is used as a numerator to establish the overall Contractor Overheads rate. Énergir takes into account the territorial variation of this $11.6M, included in the overall rate calculation.

3.3 Please specify whether the calculation of the 27.1% rate provides a weighting between the expected Contractor Overheads for Network Development projects and those expected for Network Improvement projects.

Answer:

The overall rate of 27.1% is considered as a single rate which is applied without distinguishing between Network Development projects and Network Improvement projects.

4. References: (i) Exhibit B-0286, p. 10 and 11, answer to 2.13;
(ii) Exhibit B-0286, p. 29, answer to question 11.1.

Preamble:

(i) **"**2.13 *How are the Contractor Overheads attributed to specific projects?*

Answer:
Here is how the current Method attributes Contractor Overheads to projects under $1.5M:

In the current methodology for the profitability evaluation for a development project, Gaz Métro allocates 27.1% of contractor overheads to the cost calculation of the project. This allocation to a project is used to evaluate the profitability of the development project a priori to determine if it will be approved or not.

[…]

(ii) "11.1 *What is the share of work carried out by "primary contractors"?*

Answer:
All work which responds to criteria defined in the General Contract are carried out by "primary contractors." The works excluded from the scope of the General Contract are those on delivery and/or compression stations, all work on projects for which the Contractor's estimated cost is over $1M and network extension projects, diversion or closure of Main Lines whose class is equal to or greater than 4,000 kPa. In the case of specific projects, a call for tenders is carried out (in which the "primary contractors" participate)."

The Régie understands that in the current Method for project profitability evaluation, Énergir allocates, Contractor Overheads to all Network Development projects which are under $1.5M, in accordance with the General Contract.

Request:

4.1 Please reconcile the Régie's understanding according to which all projects or $1.5M or less are covered by the Contractor Overheads provided for in the General Contract with the response in reference (ii) which states that projects estimated at more than $1M are excluded.

Answer:

It should be noted that the general contract normally covers almost all projects with contractor costs under $1M (amount that was provided for in the general contract) as well as projects for main lines which have a class of less than 4,000 kPa.

In addition, the situation may arise, for atypical or non-standard projects, where Énergir will proceed to a call for tenders or a price request, even for a project which has contractor costs of less than $1M. In very rare cases, the costs included in the contractor overheads in the general contract do not apply. Indeed, since a call for tenders or a request for quotations takes place, the tendered prices for this project will contain a portion of specific fixed costs, which will be considered in the profitability analysis, since these are incremental costs directly incurred by the project in question.

5. References: (i) Exhibit B-0286, p. 8, answer to question 2.6;
(ii) Exhibit B-0286, p. 10, answer to question 2.12;
(iii) Exhibit B-0286, p. 10 and 11, answer to question 2.13;
(iv) Exhibit B-0286, p. 12, answer to question 2.18.

Preamble:

(i) *"***2.6** *Please elaborate on the nature of the costs included in contractor overheads. If labour costs are included, please indicate the tasks performed by this manpower.*

Answer:
All fixed costs required to carry out the General Contract (scope of work:

"The works consist of but is not limited to the installation, and/or replacement of the main lines of classes below 4,000 kPa and/or building connections within territorial boundaries, and any related development tasks for the improvement and integrity of the network in order to serve Gaz Métro customers with natural gas") must be included in maintenance costs (contractor overhead costs). The Contractor shall not provide any amount related to the fixed costs in the Service Sheets provided for the performance of the Work (price schedule submitted during the call for tenders according to the different nature of the work). The contractor overheads provided for in the General Contract, and invoiced quarterly, consist of two main categories, namely operating expenses and salaries." [Our underlying].

(ii) "2.12 *Please file the agreements specifying the setting of contractor overheads concluded with contractors for 2017.*

Answer:
The agreements specifying the establishment of overheads entered into with contractors are part of an overall price schedule which contains the price of nearly 500 service sheets. These prices are confidential and cannot be made public in order not to impair the call for tenders system in the future. However, Gaz Métro refers to the responses to questions 2.3 and 2.18 which specifically show the evolution of contractor overheads (without being broken down by the contractor)."

(iii) "2.13 *How are contractor overheads attributed to specific projects?"*

Answer:
Here is how the current Method attributes contractors overheads to projects under $1.5M

In the current methodology for the profitability evaluation for a development project, Gaz Métro allocates 27.1% of contractor overheads to the cost calculation of the project. This allocation to a project is used to evaluate the profitability of the development project a priori to determine if it

will be approved or not. Once the project is approved and carried out, there is no allocation of contractor overheads to each development project in Gaz Métro's accounting records. The contractor overheads paid by Gaz Métro represent an annual fixed amount per contractor initially established in the General Contract and this amount is fully capitalized, regardless of the number of projects completed.

Here is how contractor overheads are generally processed for specific projects of more than $1.5M:

In the case of specific contracts, their overheads are processed separately from the General Contract. During the call for tenders for specific contracts, the price submitted for each of these projects contains a portion of overheads which serves to cover expenses (administration, operations) incurred by the project and that are independent of the current activities in the General Contract. "

(iv) "2.18 *Please submit for 2014 to 2016 and for each of the general contractors, the Contractor Overheads negotiated at the beginning of the year, the contractor overheads actually disbursed, the number of projects planned and the number of completed projects, the amount of planned investments and the amount of investments made.*

Answer:

Here is the table for contractor overheads for 2014 to 2016, the number of connections and kilometres of pipes (which are representative of the works carried out by the Contractors) as well as investments in development. As specified in the answer to question 2.12, the amounts stipulated in the General Contract are confidential and it is why Gaz Métro supplied data globally and not by contractor."

	Année de construction 1er avril au 31 mars					
	2014		2015		2016	
	Prévu	Réel	Prévu	Réel	Prévu	Réel
Frais généraux entrepreneurs (M$)	9,0	9,0	10,4	10,4	10,5	10,5
% d'augmentation / (diminution)		*0 %*		*0 %*		*0 %*
Nombre de branchements	2,888	2,744	2,656	2,584	2,498	2,177
% d'augmentation / (diminution)		*-5 %*		*-3 %*		*-13 %*
Nombre de km de conduite	77	65	73	68	58	71
% d'augmentation / (diminution)		*-16 %*		*-7 %*		*22 %*
Investissements - Développement (M$)	26,5	27,2	26,4	31,9	25,6	31,4
% d'augmentation / (diminution)		*3 %*		*21 %*		*23 %*

(1) Prendre note que les frais généraux entrepreneurs s'appliquent aux projets de développement et d'amélioration du réseau

As shown in the table, the variation in the number of connections and kilometres of main lines between what was planned and the reality has no influence on the amount of contractor overheads paid." [Our underlying]

The Régie understands that, in the Current Method, the overall rate of 27.1% corresponding to contractor overheads is applied, to evaluate the profitability of each project carried out which is under $1.5M, to cover the total amount negotiated and invoiced to contractors quarterly, regardless of the number of projects carried out (number of connection of kilometres of pipes) corresponding to *"service sheets."*

For the years indicated in the table of answer 2.18, the Régie notes an increase from 3% to 23% between expected and actual investments in the years 2014, 2015 and 2016, without the contractors overheads varying.

Requests:

5.1 Considering that *once the project is approved and carried out, there is no allocation of contractor overheads to each development project in Gaz Métro's accounting books,* please confirm the Régie's understanding that:

- In the New Method, the net costs associated with the completion of a project exclude Contractor Overheads;
- In Énergir's *"accounting records,"* regardless of the method for tracking project costs, for example, the costs associated with a project only partially reflect all of the actual costs incurred to complete it, since Contractor Overheads are excluded.

Answer:

Énergir confirms that according to the New Method, the net costs of a specific project exclude contractor overheads. Contractor overheads are an annual fixed amount that does not vary based on projects. For this reason, these contractor overheads are not reflected in the costs associated with a project. These costs are considered in terms of portfolio, i.e. in the overall profitability of the development plan.

5.2 In the hypothetical case where actual investments would be less than the projected investments for any given year, please confirm the Régie's understanding that contractor overheads will nevertheless have be paid in full to the contractors in accordance with the General Contract.

Answer:

Énergir confirms that contractor overheads are a payable fixed amount. Énergir must pay all these costs, regardless of the number of projects carried out. The opposite is equally true, i.e., if the actual investments are higher than those expected, Énergir will have to pay contractor overheads in accordance with the General Contract.

5.3 If yes, please indicate if all Contractor Overheads are charged, for regulatory purposes, to the different investment categories respectively, including Network Development, regardless of the number of projects carried out.

Answer:

Énergir is uncertain as to what is meant by "for regulatory purposes." According to their understanding of the issue, the total amount of contractor overheads is charged for regulatory purposes regardless of the number of projects completed between the following categories i.e., Network Development and Network Improvement. It should be noted that Énergir is currently evaluating the possibility of aligning the processing of contractor and corporate overheads as part of exhibit on additions to the rate base. Indeed, capitalized corporate overheads are in a separate category. Starting with the 2020 rate case, Énergir could also consider contractor overheads in a separate category.

Thus, only a portion of contractor and corporate overheads would be allocated within the development plan. These overhead costs allocated to development are costs which cannot be directly attributed to a new customer, but are shared for all new projects since they support the connection activities of new Énergir customers. Since these costs are relatively fixed set for a certain range of projects authorized annually, incurred on an annual basis and do not vary directly based on the number of new customers or new projects, they must be considered in terms of the development plan's overall profitability.

Énergir points out that if these indirect costs are allocated project-by-project, some individual projects may not meet the criteria for acceptable profitability. This situation would prevent Énergir from benefiting from savings of scale and incurring rate reductions for all customers. The numerical example in section 4.5 of the Black & Veatch report (B-0278 Gaz Métro-7, Document 5) clearly illustrates this.

5.4 In reference (i), Énergir specifies that the works relating to the General Contract concluded with the contractors *"consist, without being limited to the installation, and/or the replacement of main lines [...] and/or building connections [...], and any related task linked to the development, improvement and integrity of the network [...] "*. Please specify the

nature of this work other than the installation or replacement of main lines or building connections.

Answer:

The title "all related tasks" (other work) mainly represents:

1. The completion of minor corrective works, for example the addition of protection poles, the adjustment of ascending pipes, the replacement of the cathodic protection terminals; and
2. The modification of measuring stations (in particular, the replacement of meters and the modification of regulating equipment).

In addition, note that these "related tasks" represent less than 1% of construction costs paid via the general contract.

5.5 Please indicate if the Contractor Overheads also cover the completion of work other than the installation or replacement of main lines and building connection, such as maintenance work and maintenance of the existing network. If yes, please indicate if part of these costs could be recognized in expenses (operation expenses), whether prospective or actual.

Answer:

Contractor overheads cover all work carried out via the general contract. Please also refer to the answer to question 5.4.

Costs - Corporate Overheads

6. References: (i) Exhibit B-0298, p. 27, answer to question 7.2;
(ii) Exhibit B-0286, p. 5, answer to question 2.3.

Preamble:

(i) *7.2 Please confirm whether the overheads for projects under $1.5M is calculated using a linear correlation (reference (i)). If so, please present the correlation. If this is not the case, please explain.*

Answer:
The corporate overhead rate that applies to projects under $1.5M is 14.53%. There is a linear correlation between the amount invested and the amount of capitalized overheads. The higher the amount invested, the higher the amount of corporate overheads.

Example:
Construction project of $0.5M: the corporate overhead amount is $0.07M.
Construction project of $1.0M: the corporate overhead amount is $0.15M (double the amount of a $0.5M project) [Our underlying]
[…]

(ii) "**2.3** *Please confirm that the actual total level of capitalized corporate overheads depends on the number and extent of projects completed? For example, is it true that if no investment was made, no corporate overheads would be capitalized?*

Answer:
The actual total level of corporate overheads depends on the activities of cost centres included in the establishment of the amount. These costs vary very little over time as they are largely composed of relatively fixed labour costs in the short and long term. The following chart shows that the corporate overheads do not vary based on completed projects. The factors that cause them to vary are mainly wage inflation and other expenses as well as costs related to fringe benefits. [Our underlying]

Requests:

6.1 Please reconcile the highlighted excerpts of the references cited.

Answer:

The answer in reference (i) only explained how the corporate overhead costs for projects under $1.5 million were charged (based on a percentage estimated at the beginning of the year) per project.

As the rate was 14.53%, the overheads were allocated according to the following formula:

- construction costs x 14.53% (linear relationship)

Obviously, since this is a cost allocation (allocation based on an estimated percentage at the beginning of the year), the total costs allocated for all projects did not match the actual total level of overheads.

As indicated in reference ii), the actual total level of corporate overheads depends on the activities of cost centres included in the establishment of the amount. These costs vary very little over time as they are largely composed of relatively fixed labour costs in the short and long term.

6.2 Please indicated if all Corporate Overheads are charged, for regulatory purposes, to the different investment categories respectively, including Network Development, regardless of the number of projects carried out.

Answer:

The total corporate overheads is considered for regulatory purposes, regardless of the number of projects completed. In addition, please refer to the answer to question 5.3.

Exceptional cases - Industrial parks and road repaving

7. References: (i) Exhibit B-0281, p. 9, answer to question 8.1;
(ii) Exhibit B-0281, p. 9, answer to question 8.2;
(iii) Exhibit B-0281, p. 9, answer to question 8.3;
(iv) Exhibit B-0281, p. 10, answer to question 8.4;
(v) Exhibit B-0277, p. 16.

Preamble:

(i) "*8.1 Please clarify the exact amount of the budget planned for industrial park and road repaving projects.*

Answer:
Gaz Métro clarifies that it put in place a budget of approximately $1.5M which will be accessible in order to reach a PI of 0.8 for industrial park and road repaving projects which have an expectation of future densification. This budget can be revised each year and will be established during the rate case. Gaz Métro reiterates that this budget will be drawn from the overall profitability of the development plan."

(ii) "*8.2 Please provide explanations in order to understand how the amount was determined for industrial park and road repaving projects.*

Answer:
In 2016, the average amount of investment required for industrial park and road repaving projects was approximately $150 000. Considering approximately ten projects, an envelope of $1.5M could be adequate to allow for the completion of these types of projects in a given year.

(iii) "*8.3 Provide the percentage of the amount based on the total budget for the development plan.*

Answer:
The percentage of the planned budget for industrial park and road repaving projects on the total budget for the development plan can vary from year to year. According to the latest development plan for the 2018[3] rate case, the total investment amount was $67M. By adding a budget of $1.5M, this budget will represent 2.2% of the total development plan budget."
Footnote from page 3: "*R-3987-2016, B-0196, GazMétro-7, Document 2"* [The exhibit cited in the footnote of page 3 from reference (iii) corresponds to the 2017–2018 Development Plan.]

(iv) "*8.4 Please establish the fund allocation criteria between the different projects.*

Answer:
Gaz Métro will prioritize the most promising projects in terms of densification potential in order to allocate the budget for industrial park and road repaving projects. Obviously, these projects will have to have a densification potential allowing for the achievement of a profitability index of 1. In addition, another element to consider regarding the allocation of this budget is that the development plan must reach a profitability index greater than or equal to 1.1." [Our underlying]

(v) *The development plan must reach a minimum profitability index greater than or equal to 1.1, which corresponds to an IRR of approximately 6.01"* [footnote omitted].

Requests:

7.1 Please explain what Énergir means by *"it will put in place a budget of approximately $ 1.5M which will be accessible in order to reach an PI of 0.8 for industrial park and road repaving projects which have an expectation of future densification."* Please apply this proposal from the New Method to the hypothetical example of a exceptional case project with an PI of 0.4, by justifying Énergir decision to complete this project or not.

Answer:

During each rate case, Énergir will propose a budget based on an estimate of needs which will be based specifically on the future and the prospective information available. Budgeting should also ensure that the overall development plan achieves a profitability index greater than or equal to 1.1. This budget could thus vary from one year to another depending on the estimate of needs and the overall profitability level of the provisional development plan.

During the year, the sums will be used so that repaving and industrial park projects, which have an expectation of future densification and which have an IP of less than 0.8, will reach an IP of 0.08. The setting of an annual budget, which is an internal governance measure, allows Énergir to contain the downward marginal impact on the overall profitability of projects with an IP of less than 0.8. Note that despite the setting of a budgetary amount, the actual evolution of profitability during a year could affect its use. Indeed, the development plan must reach an overall profitability index greater than or equal to 1.1, which can influence the amounts invested in repaving and industrial park projects. For example, if in a given year, the sales plan was at risk of not reaching the minimum IP of 1.1, the actual sums used for repaving and industrial park projects will have an IP of less than 0.8 could be lower than the budget estimate.

Here is an example of application of this proposal for a project covered by this budget with an IP of 0.4.

- As a first step, Énergir will assess the viability of the project based on the expectation of future densification according to the internal governance process (see B-0277, Gaz Métro-7, Document 4, section 2.6). More information will be analyzed in order to allow Énergir to make an informed judgment on the profitability expectations of the project.
- As a second step, Énergir will evaluate the sum which would be required to make the project's IP increase from 0.4 to 0.8. If, for example, the sum is $500K, an equivalent amount will be deducted from the $1.5M budget. Note that this budget will be monitored by the cost control team. In terms of calculating the overall development plan, this project will have an IP of 0.4 and will thus reduce the overall profitability of the plan, for example, from an IP of 1.4 to 1.3.
- Finally, Énergir will ensure that the overall profitability is always greater than or equal to an IP of 1.1.

It should be noted that this is a budget and that it is possible that the actual amounts may be slightly different from budgeted amounts. However, for Énergir, it is essential to rigorously manage these projects in order to encourage prioritizing the most promising projects, while promoting the achievement of the minimal overall PI target of 1.1. By "most promising," Énergir is referring to projects with the highest rate reduction expectations. As a simplified example, if Énergir had to choose between two industrial park projects, which both had a $500K impact on the budget, one of which is supported by the City via 5-year tax breaks and positioned in a strategic corridor between two highways and the other without City support and less strategically positioned, the first would be favoured.

7.2 Please justify the hypothesis of a "some ten projects" considered in the evaluation of the $1.5M envelope to allocate to exceptional cases, namely industrial park and road repaving projects.

Answer:

Although Énergir responded to the Régie's questions regarding budget determination in this case, it is important to keep in mind that Énergir is not seeking to have the amount set, but rather the concept. As mentioned in the evidence and in response to requests for information (reference i), this budget will be established during the rate case and may be revised every year, particularly based on the estimate of needs and the overall profitability level of the provisional development plan (the overall development plan must reach a profitability index greater than or equal to 1.1).

7.3 Since the average cost of an investment for the completion of exceptional case projects is approximately $150K, should we understand that Énergir sets a maximum price tag for costs in determining the projects to retain. For example, a single industrial park project with a value of $1M would not be retained. Please confirm.

Answer:

No, Énergir does not set a maximum price tag per project. A single industrial park project using $1M of the budget could be a scenario (but unlikely on the basis of the historical average of industrial park projects):

- If this project is promising in terms of densification potential and makes it possible to reach a project IP of 1 (rate reduction); and
- While ensuring a PI greater than or equal to 1.1 in terms of the overall development plan.

If there are multiple projects, the most promising will be prioritized (see the answer to question 7.1)

7.4 Please provide the cost history of completed projects corresponding to exceptional cases, i.e. industrial park and road repaving projects, for the last six years, by indicating their respective cost for two types of projects, as well as the proportion corresponding of the total costs of the Development Plan. Please also indicate the evolution of the IRR of aggregated projects of the two exceptional cases in time, with fulfilment of volumes, if applicable.

Answer:

Énergir has completed road repaving and industrial park projects according to the MAT Method since 2016 only (B-0258, Gaz Métro-9, Document 4, p. 21). As a result, Énergir possesses the history of this type of project as it has been monitoring it separately, i.e. since 2016

	2016[1]			**2017[1]**		
	Number of projects approved	**Projected investments *(000$)***	**Proportion of total projected costs from the development plan *a priori* 2016**	**Number of projects approved**	**Projected investments *(000$)***	**Proportion of total projected costs from the development plan *a priori* 2017**
MAT industrial parks	27	4,286	7.8%	10	2,027	3.4%
MAT repaving	3	456	0.8%	0	0	0%
Total	**30**	**4,742**	**8.6%**	**10**	**2,027**	**3.4%**

Note 1: Projected investments include all capitalizable costs, including contractor and corporate overheads.

To date, the IRR *a posteriori* for approved industrial park and repaving projects in 2016 and 2017 is 0%. For projects approved in 2016, the volumes *a posteriori* are low and have a negligible impact on the IRR *a posteriori.* This situation is mainly due to the fact that these projects were signed off recently and therefore, few clients have recorded actual consumption years. For projects approved in 2017, no clients have accumulated 12 months of actual consumption to date.

7.5 Please confirm the Régie's understanding that the Development Plan, which must reach a PI of 1.1 in order to allocate a budget of $1.5M in exceptional cases, includes these industrial park and road repaving projects.

Answer:

Yes. The budget which will be projected in the rate case forecast and the actual amount used which will be recorded at the end of the year must have an overall development plan PI greater than or equal to 1.1. As an illustration, when calculating the overall development plan, an authorized industrial park project with a PI of 0.4 (and an impact of $500K on the repaving and industrial park budget) would marginally reduce the profitability of the overall plan, for example, from a PI of 1.4 to 1.3. In addition, please refer to the answer to question 7.1.

7.6 Please indicate, by justifying it, according to which criteria the forecast budget of $1.5M for the completion of exceptional case projects *"may be revised each year."*

Answer:

Énergir does not ask the Régie to set the budget in this document, but the concept. Énergir supplied, as a reference, an order of magnitude to the Régie. The amount will be determined each year based on, among other things, the needs arising from the forecast of new sales of the development plan and the history of this type of project. Notwithstanding needs, the budget setting will also be influenced by the goal of reaching a PI greater than or equal to 1.1 for the entire development plan.

7.7 Please elaborate on the conditions of the accounting treatment of this $1.5M budget projected for exceptional case projects in the rate cases and closing cases.

Answer:

At the accounting level, there is no specific treatment. This is not a program like GEEP or PEDA. The setting of an annual budget allows Énergir to contain the downward marginal

impact on the overall profitability of the development plan of projects with a PI of less than 0.8. It is also an internal governance measure. As mentioned in response to question 7.1, as this is a budget, it is possible that the actual amounts may be slightly different from budgeted amounts. However, for Énergir, it is essential to rigorously manage these projects in order to encourage prioritizing the most promising projects, while promoting the achievement of the minimal overall PI target of 1.1.

The budget will be set as defined in question 7.6. This will be part of the investment budget of the development plan of the rate case. Énergir will indicate the amount of this specific budget in the development plan document.

In the annual report, the actual amount used will be presented so that the Régie can see the difference between the forecast and the reality.

8. References: (i) Exhibit B-0281, p. 10, answer to question 8.4;
(ii) Exhibit B-0281, p. 11, answer to question 9.2;
(iii) Exhibit B-0258, p. 31, answer to question 9.1.

Preamble:

(i) "*8.4 Please establish the fund allocation criteria between the different projects.*

Answer:
Gaz Métro will prioritize the most promising projects in terms of densification potential in order to allocate the budget for industrial park and road repaving projects. Obviously, these projects will have to have a densification potential allowing for the achievement of a profitability index of 1. In addition, another element to consider regarding the allocation of this budget is that the development plan must reach a profitability index greater than or equal to 1.1." (Our underlying)

(ii) *9.2 Please comment if, with the new Gaz Métro approach, separate monitoring will be carried out on road repaving and industrial park development projects.*

Answer:
The objective of adding a profitability analysis a posteriori six years later, for development projects with PIs between 0.8 and 1, as well as for industrial park and road repaving projects, is to validate that the profitability of these projects surpasses a total PI of 1. Thus, for regulatory efficiency reasons combined with the fact that the current monitoring a posteriori three years

later already requires several months of work, Gaz Métro does not plan to carry out a separate monitoring for road repaving and development of industrial park projects. [Our underlining]

(iii) « ***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.

Answer:
For a medium-sized project where the main line layout would be located entirely under municipal infrastructures (pavement or sidewalk) a saving of approximately 30% would be possible on the portion of contractor services costs assuming that the project would be carried out in a coordinated manner with municipal works" [Our underlining]

Requests:

8.1 Please indicate how Énergir intends to validate the most *"promising"* exceptional case projects, with a potential for densification to reach a PI of 1, that it will have achieved, in order to really reach this profitability because it does not plan to carry out separate monitoring for exceptional case projects.

Answer:

In exhibit B-0277 (Gaz Métro-7, Document 4), Énergir mentioned:

> "[Énergir] *will improve its profitability analysis* a posteriori *that is filed in the annual report. More specifically,* [Énergir] *will add profitability analysis* a posteriori *six years later for development projects with a PI* a priori *between 0.8 and 1, as well as industrial park and road repaving projects. Thus,* [Énergir] *will be able to measure the densification of all these projects and make adjustments as needed. "*

Énergir is willing to provide specific aggregated monitoring for exception cases (industrial park and road repaving), in addition to the aggregated one for projects with a PI *a priori* of 0.8 to 1. The objective is to validate that the profitability related to the specific exceptional cases budget globally surpasses a PI of 1.

8.2 Please comment on the possibility of providing an aggregated monitoring (and not by project) for each of the two types of exceptional cases, *a posteriori*, of the profitability of these projects.

Answer:

Please refer to the response to question 8.1.

8.3 Please indicate if Énergir conducted a study to determine the 30% saving rate possible on contractor services costs. If yes, please provide details.

Answer:

To perform this potential savings analysis, Énergir made an approximative and theoretical evaluation of work costs that could be avoided (work not required) in the case where a medium-sized project would be carried out in a coordinated manner with municipal works.

Costs - Risk management and contingency

9. References: (i) Exhibit B-0298, p. 15, answer to question 4.1;
(ii) Exhibit B-0298, p. 24, answer to question 5.5.

Preamble:

(i) *"4.1 Please explain whether Gaz Métro classifies system extension projects over or under $1.5M according to the level of accuracy in the cost estimate and/or according to the progress of the engineering study. If yes, please outline and explain this classification. If not, please propose a project classification in order to assess the uncertainty associated with the cost estimate or the risk of cost overruns.*

Answer:
[…]
Estimation class
An important element to establish, from the beginning, is the desired estimation class since it determines, among other things, the level of precision, time and costs of carrying out the estimation of the project and the contingency level required. The estimation class grid was developed from recommendations from the Association for the advancement of cost engineering (AACE International Inc.). "

(Excerpt)

Grid estimation classes

	Class 5	Class 4	Class 3	Class 2	Class 1
	Magnitude	Feasibility	Budget	Audit	Final forecast costs
Contingency	None	10% to 25%	10% to 15%	Risk analysis or costs associated with project risks	Risk analysis or costs associated with project risks
Knowledge of parameters	0% to 2%	1% to 15%	10% to 40%	30% to 75%	65% to 100%
Production costs	0.1% to 0.5 of estimated costs	0.2% to 1% of estimated costs	0.5% to 2% of estimated costs	1% to 5% of estimated costs	2% to 10% of estimated costs

[…]
"A class 3 estimation is generally used for internal approval of projects carried out by Gaz Métro, including those submitted to the Régie de l'énergie."

[…]

"The contingency value allocated to the budget of a project is one of the measures used to mitigate the risk of exceeding the allocated budget. All risks are therefore not mitigated by contingency.

The amounts allocated to contingency make it possible to compensate for uncertainties and the portion of mitigated risks or not (accepted). The establishment of these contingency amounts for a project must consider elements relating to:

- *the project schedule;*
- *market conditions at the time of the call for tender;*
- *environmental conditions;*
- *risks inherent to the type of work; and*
- *technical data; quantity variations, additional activities, methods, productivity.*

As described in the table, a class 3 estimation has a precision level of plus or minus 15%. If the project involves risks which could lead to a budget overrun of more than 15%, these are considered in the contingency calculation. This type of project requires a higher contingency percentage."
[…]

"Contingency and project risks
Contingency is an amount put in place at estimation and intended to cover additional costs that may result from uncertainties related to, for example, changes in engineering, market conditions and field conditions (execution) and which could cause changes to the project."
[…]

"Projects over $1.5M
These projects are large scale and generally have a higher risk level. This is why Gaz Métro equipped itself with the @RISK software with the aim of using the Monte-Carlo simulation method to calculate contingency based on the estimated project risks. This tool is a complex algorithm which uses probabilities to produce a wide range of simulations.
[…]

Projects under $1.5M
Projects with a value of less that $1.5M are generally carried out in a known and controlled environment and are more repetitive in nature and account for a significant proportion of projects carried out. As a result, the databases of actual costs for projects carried out as well as environmental knowledge are well documented.

(ii) *5.5 Given your answer to the preceding sub-question, please specify how Gaz Métro deals with cost overruns for projects under $1.5M.*

Answer:
A monthly analysis of construction projects with cost overruns greater than $0.1M is carried out by the New construction and the Network improvement service. The discrepancies are explained and presented by the service director. The analysis is used to refine estimation methods.

Requests:

9.1 Please indicate which costs correspond to *"production costs"* from the excerpt of the table in reference (i) in the context of network extension projects. Please give examples according to project (less than or greater than $1.5M).

Answer:

The percentages corresponding to production costs represent the costs of carrying out the project cost estimation. These are based on the cost estimation of previous projects. They allow cost estimation applicants, such as a sales representative responsible for a project, to estimate the cost could result from the preparation of this estimate. For example, a $30M project could generate production costs for a class 3 estimate between 0.5% and 2.0%, i.e., between $150K and $600K. The same is true for an estimate of less that $1.5M.

9.2 Please confirm the Régie's understanding that Énergir believes that projects under $1.5M generally have a rather low level of risk considering *"their repetitive nature"* and the fact that they are *"generally performed in a known and controlled environment"* where knowledge is well documented.

Answer:

Énergir confirms that this type of project corresponds to projects found in areas already using natural gas where geological data and installation conditions are often known. The frequency of this type of project is greater than projects of $1.5M or more. In addition, the costs of this type of project are generally estimated with the costs of the general contractor already under contract in this sector.

9.3 Please justify that Énergir "*generally"* uses a class 3 estimation for all of its projects (less than and greater than $1.5M), corresponding to a contingency level of 10% to 15% while

the risk levels linked to uncertainties that may alter project costs are different for these two project types.

Answer:

The reference table indicates that the contingency for a class 3 cost estimation should normally be between 10% and 15%. This represents the contingency interval observed according to Énergir projects previously carried out, for projects with estimated costs of less than $ 1.5M. For projects with estimated costs greater than $ 1.5M, each project is subject to a Monte Carlo analysis to calculate the appropriate contingency according to the risk level of all project activities. The contingency percentage is generally found to be between 10 and 15% but sometimes it may be less than 10% or greater than 15%, depending on the risk level of project activities. The objective of this exercise is to take new elements into account for major projects and calculate the appropriate contingency percentage, allowing for the project to be carried out within the estimated budget, with a probability of 85%.

9.4 Please justify the $100k threshold used to identify a project cost overrun of less than $1.5M by indicating the average cost of a project of this nature, under *"New Construction"* and *"Network Improvement."*

Answer:

In response to a request for information, Énergir mentioned that the monitoring of network extension project costs of less than $1.5M was carried out as part of a profitability analysis *a posteriori* of a development plan, three years later (B-0298, Gaz Métro-9, Document 1, p.23, question 5.4). Énergir wants to mention that the $100k threshold is one of the elements used to identify extension projects with a significant cost difference during this analysis *a posteriori*. The level of capital investment for expansion projects for the 2009 to 2013 development plans is above $6M for each residential and business markets (B-0298, Gaz Métro-9, Document 1, appendix Q-9.3a).1 and appendix Q-9.3a).2, col.1, line 32). The threshold of $100k therefore represents 1.7% of capital investments for a development plan for a given market. Énergir considers this to be an acceptable minimum threshold in terms of relative importance, considering the level of investments in extension projects previously mentioned.

Énergir wishes to draw the Régie's attention to the fact that, in addition to monitoring the costs of extension projects in significant variations resulting from the analysis *a posteriori* three years later, it is carrying out a comparative monitoring of the actual vs. estimated costs for the network extension and network improvement projects when completed.

Costs - Risk management and sensitivity analysis

10. Reference: Exhibit B-0298, p. 24, response to question 6.1.

Preamble:

"4.1 Please explain whether Gaz Métro classifies system extension projects over or under $1.5M according to the level of accuracy in the cost estimate and/or according to the progress of the engineering study. If yes, please outline and explain this classification. If not, please propose a project classification in order to assess the uncertainty associated with the cost estimate or the risk of cost overruns.
Answer:

6.1 Considering the uncertainty range for the project cost estimate, please provide details on the relevance and usefulness of submitting, for projects over $1.5M, a sensitivity analysis summing up the effect on rates of a 10% variation on the costs (reference (i)), without going into the risks associated with cost overruns. Please comment on the desirability of conducting a sensitivity analysis that would take into account the risk associated with the cost estimate.

Answer:
Currently, Gaz Métro carries out an analysis of ±20% on volumes and ±10% on costs. Given that projects of more than $1.5M submitted to the Régie are class 3 projects according to the project classification grid, Gaz Métro has no objection to adapting its sensitivity analysis in order to take the risk associated to cost estimation into account. The sensitivity analysis presented would then be ±15 % for class 3 projects. [Our underlining]

Request:

10.1 Please comment on the appropriateness of adapting the rate of change to the sensitivity analysis according to the risk level of the project for which Énergir requests authorization from the Régie.

Answer:

Following Énergir's response quoted in the preamble, the sensitivity analysis for investment projects of more than $1.5M was adapted to take into account the risk associated with the cost estimation, evaluated according to a class 3 estimation. In fact, the sensitivity analysis of the following projects was presented with construction costs of ±15%:

- R-4020-2017: Extension project of the network in the Appalaches and Beauce-Sartigan RCMs;

- R-4021-2017: Extension project of the network in Saint-Marc-des-Carrières; and
- R-4022-2017: Reconstruction project of the Trudel bridge line.

In addition, Énergir does not believe that the percentage of ± 20% for volume sensitivity analysis should be changed. Risk relating to the costs of a project and establishing the contingency has no impact on the volumetric "risk" and therefore this risk cannot be "adjusted" based on risk-related costs.

The potential for densification - Erosion of clients and volumes

11. References: (i) Québec Government, « Energy Policy 2030 », 2016, p. 54;
(ii) Exhibit B-0257, p. 26, answer to question 7.2;
(iii) File R-3972-2016, advice Advice-2017-01, p. 28 and 113;
(iv) Exhibit B-0258, p. 19, answer to question 5.9;
(v) Exhibit C-ROEÉ-0111, p. 10.

Preamble:

(i) ***Natural gas supply***
Natural gas is a profitable transition energy for Québec. It will play an important role over the next few decades in supporting the economic development and competitiveness of Québec companies on the international scene. The government therefore intends to provide Québec households and businesses with reliable, secure and stable access to natural gas throughout the region where there will be demand and economic profitability. For that, the government intends to:

- *continue to extend the gas network;*
- *develop a liquefied natural gas supply network;*
- *increase the production of renewable natural gas.* [Our underlining]

(ii) ***7.2*** According to Gaz Métro, what will natural gas's competitive position be compared to electricity for heating in 25 years?

Answer:
While some long-term natural gas price assumptions suggest that it is expected to be a competitive energy source, it is currently difficult to conclude on the state of the competitive position compared to electricity in 25 years, especially for a market. [Our underlining]

(iii) *"[19] The 2030 Energy Policy affirms the desire to continue to extend the gas network, develop a liquefied natural gas (LNG) supply network and increase RNG production"* [Our underlining]
[…]

"5.1. *NETWORK EXTENSION*
[319] Gazifère and Gaz Métro want a change in the regulatory framework with respect to the extension of their distribution network. Gaz Métro is of the opinion that it is essential to use all available pricing and regulatory tools to facilitate access to natural gas to customers who do not currently have access to it. These two distributors indicate the growing difficulty of making network extension projects profitable under the current regulatory framework because of high

marginal costs they face and need to obtain a priori the guarantees of volumes of gas consumed by a sufficiently large number of customer without being able to take into account future growth.

[320] Gaz Métro affirms that "the arrival of numerous technologies could nevertheless reduce the natural gas consumption level and thus put upwards pressure on distribution rates for all customers. "

[321] Currently, projects submitted to the Régie for authorization, under Section 73 of the Act, are those requiring investments greater than $1.5M for Gaz Métro and greater than $450,000 for Gazifère.

[322] Under Section 5 of the Act, the Régie ensures, in the exercise of its powers, conciliation between public interest, customer protection and the fair treatment of the electricity carrier and distributors. It promotes the satisfaction of energy needs in accordance with the objectives of the Québec government's energy policies and with a view to sustainable development and equity at the individual and collective levels.

[323] In this context, it is important to ensure that the existing base of customers of natural gas distribution networks, which is relatively small compared to that of electricity distributors, does not assume an unreasonable share of the cost of extending the gas networks.

[324] In the course of its decisions, the Régie established criteria to guide the decision-making process. In general, a network extension project should be economically justified and in the long term, should not cause rates to increase.

[325] The Régie relies on several principles and factors when authorizing a distributor's investment project. Although it generally sticks to the criterion of economic profitability, it can also consider other criteria, of a societal nature for example.

Potential solution 20. *Taking into account the low number of natural gas customers in Québec, in order to avoid undue rates increases, public assistance in the case of natural gas extension projects which are not profitable on the basis of reasonable rates.*

" [footnotes omitted] [Our underlying]

(iv) *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.*

Answer:

Note that Gaz Métro does not perform an official forecast for the number of clients in 2017–2018 and that it will not perform one for 2019-2020.

Nombre de clients sur réseau par tarif
En nombre

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017p	2018p
Tarif D_1	164 855	168 829	172 981	177 064	180 046	183 302	188 684	192 283	194 940	197 236	199 850	200 389	201 809
Tarifs D_M et D_3	1 625	1 670	1 690	1 712	1 684	1 588	187	217	250	265	268	257	257
Tarif D_4	89	85	82	79	77	76	84	73	86	94	98	97	101
Tarif D_5	217	188	184	172	179	166	151	138	126	103	80	71	70
Total	166 787	170 773	174 937	179 027	181 986	185 132	189 106	192 711	195 402	197 698	200 296	200 814	202 237

The Régie observes an increase in the total number of clients in the last 12 years.

(v) *"More locally, these changes have lead to Québec's goal of "reducing GHG emissions from 80 to 95% funder the 1990 level" by 2050. This means that over a period of 33 years, all industrial practices will have to undergo some important changes, one way or another. Sales Major Industries clients who are the main reason for Gaz Métro's network extensions will not escape this reality.*

In addition, considering that Gaz Métro's direct competitor is Hydro-Québec, which produces primarily renewable energy, it will be difficult for Gaz Métro to maintain a long-term competitive position. An increase in the price of gas would have a major effect on Gaz Métro, which should compete with a Crown corporation with a better environmental reputation and competitive prices. In ROEÉ's opinion, Gaz Métro's competitive position with Hydro-Québec over the next 25 years will be very different from today's. " [Footnotes omitted] [Our underlying]

Requests:

11.1 For the last 12 years, please provide, by market (residential, business, Sales Major Industry), the total number of customers, the number of new customers and the number of customers lost.

Answer:

First, Énergir wants to emphasize that there may be certain challenges in securing different information and that the customer definition is subject to different definitions; either it is a contract or an installation. Equally, Énergir's current different information systems do not always communicate with each other and it is not always possible to trace all information on customer consumption. The task of consolidating information and making it suitable is therefore a difficult task. Here are some caveats.

- The number of customers, according to Énergir's definition, for a year is the average number of active contracts in a 12-month period. Therefore, each 1-month active contract is equivalent to a $1/12^{th}$ of a customer.

- The loss of a contract does not necessarily mean the loss of a customer. A contract may cease to have effect through contractual change, in particular by a new rate agreement. A contract can also be terminated by a change in responsibility, particularly during a move followed by a redevelopment. In both cases, this has a neutral effect on the number of customers or volumes and Énergir does not consider them as losses or as new customers.

- The evaluation of loss of customers is a new methodology developed at the Régie's request during the 2013 rate case. The status of a customer loss materializes after 12 consecutive months of inactivity without an invoice. So there is always a delay between the customer loss status and monitoring of recorded customers in $1/12^{th}$. Also, a loss can be offset by a new development beyond the 12^{th} month that will not usually be captured as a new customer (new sale) since the latter will not usually require new investments. At the 2017 rate case, Énergir responded to the CFIB's request for information no. 2 (R-3970-2016, B-0187, Gaz Métro-14, Document 4) in response to 1,400 installations which became inactive between 2013 and 2015 and have become active again since then. In response to the next question, it was also mentioned that around 90% of these installations did not require any investment and were thus not considered as a new sale. Finally, Énergir would like to point out that it did not have a history of losses prior to 2013 as explained in its exhibit R-3837-2013, Gaz Métro-7, Document 3. Moreover, in its decision D-2014-077, the Régie was satisfied with Énergir's efforts to reconcile information.

  > "*[131] Taking into account the absence of valuable historical data, the Régie notes that there is no need to continue efforts to retrace information on customers lost prior to 2013. However, it is of the opinion that it is important to set up systematic monitoring to know the number and characteristics of customers lost each year.*

- New customers as presented in the development plan represent the number of sales signed in a year which need investments and not their commissioning. As there is always a delay between the signing of a contract and commissioning, newly signed customers do not perfectly match the changing number of customers.

Despite the difficulties of matching various information between them, Énergir has identified a number of pieces of information deemed relevant in answering the question.

As the Régie wishes to obtain information on the number of customers and volume for the last 12 years by market, Énergir does not have systems to easily identity the markets of active contracts from the past. Nevertheless, an exercise has been put in place since 2012 in order to provide market information in Valener's presentations to investors. Between 2012 and 2013, a market validation exercise was carried out thanks to information from Dun & Bradstreet, which has led to a significant variation between markets. This information is presented below. Also note that the Sales Major Industries category is also not taken into

account separately in the different historical follow-ups. Information on the Sales Major Industries is nevertheless mainly found in D_4 and D_5 as well as in the industrial market.

Customers in network by market	2012	2013	2014	2015	2016	2017	CAGR* 2012-2017
By number							
Residential	144,489	141,623	139,445	139,931	140,245	141,639	-0.4%
Commercial	40,281	44,179	48,600	49,552	52,141	53,282	+5.8%
Industrial	5,076	7,075	7,572	7,767	7,871	7,986	+9.5%
Total	**189,846**	**192,877**	**195,617**	**197,250**	**200,257**	**202,907**	**+1.3%**
By volume (millions of m³)							
Residential	555	569	567	563	554	575	+0.7%
Commercial	1,605	1,579	1,757	1,718	1,697	1,805	+2.4%
Industrial	3,256	3,340	3,358	3,406	3,375	3,488	+1.4%
Total	**5,416**	**5,489**	**5,682**	**5,687**	**5,626**	**5,868**	**+1.6%**

**The CAGR represents the compound growth rate, i.e. the constant rate of change for a period*

In order to align customer information per rate, here is the total number of customers per rate in the last 12 years, as well as their associated volume. Note that the information comes from exhibit B-0099, Énergir-17, Document 1, filed in the 2017 Annual Report (R-4024-2017). The total number of customers by year presented in the following table differs from the information presented in the previous table as the databases used as well as the different definitions differ. The analysis per rate uses the average of active contracts by rate while the analysis by market uses the number of active installations on September 30.

Customers by network by rate													
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	CAGR* 2006-2017
By number													
D_1 Rate	164,855	168,829	172,981	177,064	180,046	183,302	188,684	192,283	194,940	197,236	199,850	202,450	+1.9 %
D_M and D_3 Rates	1,625	1,670	1,690	1,712	1,684	1,588	187	217	250	265	268	264	-15.2%
D_4 Rate	89	85	82	79	77	76	84	73	86	94	98	98	+0.9%
D_5 Rate	217	188	184	172	179	166	151	138	126	103	80	76	-9.1%
Total	**166,787**	**170,773**	**174,937**	**179,027**	**181,986**	**185,132**	**189,106**	**192,711**	**195,402**	**197,698**	**200,296**	**202,888**	**+1.8%**
By volume (millions of m³)													
D_1 Rate	1,990	1,988	1,967	1,906	1,895	1,865	2,495	2,467	2,528	2,499	2,493	2,586	+2.4%
D_M and D_3 Rates	888	885	884	882	846	881	143	187	208	223	227	243	-11.1%
D_4 Rate	1,602	2,435	1,783	1,324	1,464	1,505	1,703	1,997	2,313	2,539	2,574	2,701	+4.9%
D_5 Rate	1,010	943	1,171	1,018	1,232	1,210	1,076	837	633	427	333	339	-9.5%
Total	**5,490**	**6,250**	**5,805**	**5,130**	**5,437**	**5,461**	**5,416**	**5,489**	**5,682**	**5,687**	**5,626**	**5,868**	**+0.6%**

**The CAGR represents the compound annual growth rate, i.e. the constant rate of variation in a period.*

In these two tables, both the number of customers and volumes have grown since 2006; the number of customers increased from 166,788 in 2006 to 202,888 in 2017, while the volumes increased from 5510^9 m^3 in 2006 to 5910^9 m^3 in 2017. All markets are growing with the exception of the residential market where the number of clients decreased despite an increase in volumes. Part of the explanation is due to changes in the housing market which is focusing more on rental towers and condos. By rate, there has been a decrease in the number of customers and D_M /D_3 volume rates and an increase in D_1 and D_4rates. Two movements are necessary, namely the transition from D_M rate to D_1 rate due to the disappearance of the D_M rate and the transition from the D_4 to D_5 rate for interruptible customers who want more stability.

Here is the number of customers lost as well as the volumes consumed for the last two years.

Customers lost by market	2013	2014	2015	2016	2017	CAGR* 2013-2017
By number						
Residential	2,122	2,475	2,497	2,597	2,203	+0.9
Commercial	778	808	849	815	776	-0.1%
Industrial	84	100	122	112	84	+0.0%
Total	**2,984**	**3,383**	**3,468**	**3,524**	**3,063**	**+0.7%**
By volume (millions of m³)						
Residential	2,120	3,609	4,812	3,092	2,829	+7.5%
Commercial	6,678	12,094	8,452	9,927	10,530	+12.1%
Industrial	14,968	89,186	3,292	28,284	17,854	+4.5%
Total	**23,766**	**104,888**	**16,556**	**41,303**	**31,212**	**+7.1%**

In this table, we can see that the number of clients lost decreased between 2016 and 2017, especially in the residential market. Énergir believes that since monitoring losses, it has put in place maintenance strategies that are beginning to bear fruit.

Finally, here are the number of meters installed for new clients. Note that the number of meters in the residential market has decreased, especially due to the market changes as discussed earlier. Otherwise, the number of meters installed in the business market has remained relatively stable with the exception of 2009 and 2010. In terms of volumes, there is a slight decrease in volumes in both the residential and business markets. The average volume for the residential market is therefore increasing due to the nature of high-rise buildings while the average volumes for the business market has dropped slightly. This is explained by the improved efficiency of new tools, new insulation standards for buildings and smaller average areas.

Meters for new customers by segment
In number of signed sales

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	CAGR* 2006-2017
By number													
Residential	5,810	5,060	6,305	4,071	5,202	5,179	5,131	3,693	3,426	3,172	2,753	2,804	-6.4%
Business	2,207	2,142	2,043	1,464	1,732	2,166	2,386	2,376	2,346	2,358	2,290	2,255	+0.2%
Total	**8,017**	**7,202**	**8,348**	**5,535**	**6,934**	**7,345**	**7,517**	**6,069**	**5,772**	**5,530**	**5,043**	**5,059**	**-4.1%**
By volume (millions of m³)													
Residential	12,862	12,500	14,359	9,058	12,091	13,886	15,578	11,619	9,306	11,178	11,036	10,541	-1.8%
Business	69,201	67,842	72,960	32,818	49,540	74,943	73,482	68,729	70,324	70,050	61,101	64,698	-0.6%
Total	**82,063**	**80,342**	**87,319**	**41,877**	**61,632**	**88,830**	**89,060**	**80,348**	**79,630**	**81,228**	**72,137**	**75,239**	**-0.8%**

**The CAGR represents the compound annual growth rate, i.e. the constant rate of variation in a period.*

11.2 Please compare, per market, the rate of change in the total number of customers to the rate of change of new customers.

Answer:

Énergir refers the Régie to the response to question 11.1.

11.3 For the last 12 years, please provide, by market, (residential, business, Sales Major Industries), the volumes consumed.

Answer:

Énergir refers the Régie to the response to question 11.1.

11.4 Please compare, by market, the rate of change in the total number of customers to the rate of change of volumes consumed.

Answer:

Énergir refers the Régie to the response to question 11.1.

11.5 Please indicate if, over time, Énergir is seeing a gradual loss of both its client base, by market, as well as overall volume of customers.

Answer:

Énergir is seeing an increase in both its customers and overall volumes as well as in the majority of its markets. The number of customers in the residential market was the only exception and this is explained by a correction following a validation exercise with Duns & Bradstreet. As for the average volume, it has increased overall from 2012 to 2017 and although by market it has decreased in the commercial and industrial markets, it has increased in all rates since 2006 with the exception of the D5 rate. Otherwise, Énergir is seeing a slowing down in the number of new sales signed in the residential market due to market changes (rental towers and condos). It is also seeing an increase in the overall average volume and a slight decrease in its total volumes as much as in the residential market as well as the business market.

Potential for densification - Customers lost

12. References: (i) Document R-3970-2016, exhibit B-0014, p. 5.
(ii) Exhibit B-0308, p. 23.

Preambles:

(i) ***" 2 PRESENTATION OF RESULTS***
The loss of customers analysis for 2014–2015 was carried out from October 1, 2014 to September 31, 2015, i.e. For the complete fiscal year. The table below indicates the number of customers and volumes lost by market.

Table 1
Customer loss by market

Sectors	Number	Volume 2013 (in m³)
Residential	2 497	4,811,935
Commercial	799	7,090,374
Industrial	122	3,291,787
Institutional	50	1,361,987
Total	**3,468**	**16,556,083**

[…]
This analysis of lost customers will contribute to improving strategies for keeping customers. "

The Régie understands that Énergir has a database that makes it possible to quantify, year after year, lost customers per market, in terms of number and volume.

(ii) *"11.6. Please provide any data available to Gaz Métro on the turnover rate of its customers by class or market segment.*

Answer:
Subject to representations that Gaz Métro may eventually make regarding the use that would be made of the information sought by this question, considering the clarification formulated in the preamble, the stakes already discussed in phase 3A and those discussed in phase 3B , Gaz Métro submits the following information:

Attrition rate by major segment *Loss of customer in % of customers from last year*			
	2014	**2015**	**2016**
Residential	1.8 %	1.7%	1.8 %
Commercial	1.8 %	1.9%	1.8 %
Industrial	1.4 %	1.6 %	1.5 %
Total	**1.8 %**	**1.8 %**	**1.8 %**

”

Requests:

12.1 Please provide the data from the table quoted in reference (i) for 2014 to 2017 inclusive.

Answer:

Énergir refers the Régie to the response to question 11.1.

12.2 Please indicate if the results of the customer loss analysis, year after year, has allowed Énergir to identify problems or situations which could explain customer loss per market.

Answer:

The data on customer loss has allowed Énergir to identify a few situations where customers decide to abandon the use of natural gas.

- Énergir noted that customers who use natural gas for a single application, such as heating, are more likely to withdraw from using natural gas. This observation has had an impact in terms of customer retention strategies as some marketing actions are now aimed at encouraging customers to install other natural gas applications.
- Énergir was able to see the importance of acting with customers who have just taken charge of a new building. The analysis of losses also illustrates that a change in building ownership increases the risk of losing a client. A new owner may wish to renovate and question the suitability of natural gas. To mitigate this situation, Énergir has improved the management of these customers by providing them with information on natural gas.

12.3 Please compare, for each year between 2013 and 2017, the number of customers lost as well as the respective volumes per market, with the connection of new customers and their corresponding additional volumes.

Answer:

Énergir refers the Régie to the response to question 11.1.

12.4 Please comment on the desirability to provide an erosion factor to Énergir's proposed Methodology in order to take lost customers into account in the evaluation of future revenue generated by extension projects.

Answer:

Énergir already provides a factor for taking into account customer lost in its development plan. In fact, Énergir recalls that unlike the comparable gas utilities identified in the Black & Veatch report, Énergir also forecasts, in the overall profitability of the development plan, that a proportion of projects are cancelled, that some meters are never open and other meters do not consume continuously over 40 years (B-0277, Gaz Métro-7, Document 4, section 1.2).

12.5 Please specify the nature of the improvements to customer retention strategies that resulted from Énergir's customer loss analysis.

Answer:

Énergir refers the Régie to the response to question 12.2.

Projects under $1.5M - Authorization under Section 73

13. References: (i) Exhibit B-0365, p. 8;
(ii) File R-3987-2016, Exhibit B-0198, p. 4;
(iii) File R-3987-2016, exhibit B-0198, p. 1.

Preamble:

(i) *"34. Alternatively, should the Régie come to the conclusion that authorization under Section 73 of the Act is required for projects of less than $1.5M, Énergir submits that this authorization could be obtained as follows:*

a. Such authorization would be requested in the context of each rate case on a provisional basis, for the upcoming year;

b. The Régie would thus be asked to authorize a global amount (budget), which would also be broken down by investment category (Section 5 of the Regulation);

c. The authorization request would be accompanied by the information stipulated in Section 5 of the Regulation."

(ii) The evidence from the 2018 rate case presents the following section, making reference to Section 73:

"10. ***Section 5 of Regulation respecting conditions and cases requiring authorization from the Régie de l'énergie (Section 7 of the Act on the Régie de l'énergie).***

The information relative to investments, where costs are lower than the $1.5M threshold, are presented by investment category and includes the following details:

- *description summary of investments and their categories;*
- *costs associated with each investment category;*
- *justification of investments in elation to objectives;*
- *impact on rates*;
- *impact on reliability of natural gas distribution service.*

Pages 1 and 2 of this document present investments projected throughout the course of the 2017-2018 rate year."

(iii) The table of additions to the rate base presents the capital investments according to the following categories:

- Network development;
- Network improvement;
- Transmission – Network;
- Gas storage;
- General facilities;
- Capitalized overheads;
- Others.

Requests:

13.1 In the event that Énergir should submit a request to Régie for prior authorization, under Section 73, for projects under $ 1.5M, please specify whether the investment categories, under which the investments will be presented, would be those listed in reference (iii).

Answer:

In each rate case, Énergir already produces the information required under Section 5 of *Regulation on conditions and cases requiring authorization from the Régie de l'énergie*, including a presentation of costs by investment category for projects under $1.5M (reference (iii)), all in accordance with article 18 of the *Filing Manual* applicable to Énergir.

Thus, in the event where Énergir should submit a prior authorization request to Énergir for projects under $1.5M, Énergir will continue to present the same information which is already presented in reference (iii), subject to the adjustment presented in question 5.3, while adding a conclusion in its application for a specific authorization under Section 73 of the Act.

13.2 If no, please indicate which would be the investment categories according to which would be presented the investments for projects under $1.5M.

Answer:

Please refer to the response to question 13.1.

13.3 Please identify, for each investment category, the investment classification "generating additional revenue" or "not generating additional revenue." Please specifically justify the classification allocated to *"capitalized overheads."*

Answer:

Investments generating additional revenue:

- Network development

Investments not generating additional revenue:

- Network improvement;
- Transmission – Network;
- Gas storage;
- General facilities;
- Others.

Regarding *"capitalized overheads,"* only part of them can be considered as additional revenue generator, i.e. the part allocated to *"network development."* In addition, refer to Énergir's response to question 5.3.

Development Plan - Reinforcement work

14. References: (i) Exhibit B-0286, p. 25, answer to question 9.1;
(ii) Exhibit B-0258, p. 1, appendix Q-2.1.

Preamble:

(i) "**9.1.** *When do you feel is the right time for analyzing the economic justification for system upgrades, and what factors should be taken into account at that time?*

Answer:
The economic analysis of network reinforcement investments are carried out in the year in which they were completed, according to needs. Gaz Métro is also making a budget projection for the reinforcement of the network, for projects of less than $1.5M, in the annual rate case, as illustrated in Exhibit B-0196, Gaz Métro-7, Document 2, in file R-3987-2016. For network reinforcement projects of more than $1.5M, they are individually filed with the Régie for approval such as the Saguenay reinforcement project (file R-3919-2015).

Gaz Métro is moving forward with reinforcement investments if they meet the following key objectives:

- *Respecting the obligation to serve existing customers and new customers. Gaz Métro's role is to provide access to natural gas and facilitate its use for customers in Québec;*
- *Ensure the supply security to existing customers. In decision D-2012-158, the Régie mentions that Gaz Métro has an obligation to ensure "the security of its network, and in this sense, it must take all necessary measures to ensure supply for customers in their network";*
- *Ensuring compliance with required measures arising from the asset management strategy.*

Gaz Métro must also ensure that network reinforcement investments are necessary, well calibrated and that the new available capacity is realistic for the growing demand.

For projects under $1.5M, Gaz Métro also makes sure that all investments in distribution network reinforcement does not compromise the achievement of the profitability target of the overall portfolio (in the New Method this target is a PI of 1.1). For projects over $1.5 M, files are presented to the Régie on a case-by-case basis and are projects generally targeting network supply and transmission such as Pétromont (R-3833-2013 and R-3941-2015), Pont Jacques-Cartier (R-3763-2011) and Saguenay (R-3919-2015). [Our underlying]

(ii) The *"Reinforcement of distribution network - Number of metres of new pipes and installation costs from 2006 to 2020 (in linear metres and $)"* table shows a change in reinforcement costs ranging from $31k (actual 2008) to nearly $3M (actual 2016), while forecasts for 2017, 2018, 2019 and 2020 are consistently around $1.2M.

Requests:

14.1 Please explain what Énergir means, on the one hand, by *"well calibrated"* network reinforcement investments, and on the other hand, by "*the new available capacity is realistic in the face of growing demand,"* as quoted in reference (i).

Answer:

By *"well calibrated"* Énergir means that network reinforcement investments are optimized according to capacity and optimal economical cost allowing it to be able to serve existing and new customers, ensure supply security to existing customers and ultimately maximize the possibility to generate lower rates for customers.

By "*the new available capacity is realistic in the face of growing demand,"* Énergir means that it is realistic that the new installed capacity to be used by the volume growth for existing and new customers making this new capacity useful and ultimately maximizing the possibility to generate lower rates for customers.

To look at a concrete example, Énergir invites the Régie to consult the Saguenay reinforcement project (file R-3919-2015).

14.2 Please justify taking the distribution network reinforcement investments into account in the Development Plan's overall profitability, and not project by project, while Énergir ensures that these investments are necessary, *"well calibrated and that the new capacity available is realistic <u>in terms of demand growth</u>*."

Answer:

The evaluation of the necessity and economic viability of a network reinforcement project and its project by project inclusion are two completely different elements.

Distribution network reinforcement investments aim to increase the distribution network's operational capacity and flexibility. A distribution network reinforcement can be required to serve new customers and/or potential future customers and/or current customers wanting to add to their current consumption volume. Having the overflowing customer bear all the costs of a network reinforcement to benefit several existing and future customers (the customer using the last available capacity) in its profitability analysis is unfair and

inefficient. Some individual projects may not meet the criteria for acceptable profitability and contributions may be required, supporting the future development of the overflowing customer. This situation would prevent Énergir from benefiting from savings of scale and incurring rate reductions for all customers. The numerical example in section 4.5 of the Black & Veatch report (B-0278 Gaz Métro-7, Document 5) clearly illustrates this.

Thus, the opportunity analysis of a network reinforcement project must take into account the future development of the existing customer base and potential new customers, as well as other considerations, as provided in reference (i).

Énergir also recalls that Black & Veatch recommends that reinforcement costs be taken into account in the overall profitability of the development plan. Énergir also refers to responses to questions 3.2, 8.1 and 12.3 of exhibit B-0319, Gaz Métro-9, Document 14 in order to consult the various arguments raised by Énergir and Black & Veatch which justify the treatment in portfolio for reinforcement projects.

14.3 Please justify the almost identical amount of $1.2 million, as presented in reference (ii), projected each year for 2017 to 2020 while the costs of reinforcement work will vary according to "needs."

Answer:

As mentioned in response to question 1.1 of the request for information no. 2 by OC (B-0293, Gaz Métro-9, Document 12), from the 2007 rate case, Énergir integrated a distribution network reinforcement amount in the development plan.

Énergir evaluates this overall amount according to an average of historical needs. These needs are generally associated with multiple pipes which depend on sales conditions which are difficult to predict. These needs are identified during the year when sales are being made. However, Énergir improves, to the best of its knowledge, the reinforcement amount for the coming year when the development plans for the rate case are completed.

Énergir wishes to make it clear that the present file is not intended to set the projected investment budget for network reinforcement, but to define the methodology (how these investments should be processed). It is in the context of the rate file that this forecast is filed with the Régie. This forward-looking information ($1.2M per year) was provided for information purposes to respond to the request for information and was based on the average of recent years.

Based on the reference of exhibit B-0308, Gaz Métro-9, Document 6, p. 3, Énergir completed approximately $16M in distribution reinforcement over the last 13 years. The average annual distribution reinforcement amount is approximately $1.2M.

Densification

15. References: (i) Exhibit B-0298, Appendix Q-9.3a).1, p. 33 and subsequent;
(ii) R-3992-2017, exhibit B-0076, R-3871-2013, exhibit B-0066, R-3809-2012 exhibitB-0130;
(iii) Exhibit B-0281, p. 1.

Preamble:

(i) *"The following table indicates the number of projects considered in each market's development plan from 2009 to 2013, as well as the variation between the IRR a posteriori (including densification, in original rates) and IRR a priori."*

(ii) Tables:

- Profitability a posteriori from the 2013 development plan monitored after three years;
- Comparison of the development plan - total sales cause 2012 versus actual a priori for the fiscal year ended on 20 September 2012;
- Profitability of the 2012–2013 development plan.

(iii) **"*Question 1***
References
i) R-3867-2013 phase 3, B-0253, GM-9 doc 1, p. 3
Preamble
i) "For the 2016-2017 fiscal year, here are the minimum profitability objectives:
- *6.28% for the residential market;*
- *14.13% for the business market; and*
- *6.28% for the Sales Major Industries market."*

Questions
1.1 Why demand a higher minimum profitability target for the business market?

Answer:
Considering historic results, as well as the size of investments and revenues associated with the business market, revenues generated by the latter counterbalance investments not generating revenues in a higher proportion than the residential and Sales Major Industries markets. Targeting a higher profitability for residential and Sales Major Industries markets, as well as lower profitability for the business market would not allow Gaz Métro to generate enough revenue to counterbalance the costs linked to investments generating and not generating revenues and would therefore put upward pressure on the rates of all customers. "

Requests:

15.1 Please indicate if Appendix Q-9.3a).1 presents only projects under $1.5M.

Answer:

Yes.

15.2 Please confirm the Régie's understanding that the development plan documents usually presented in the rate case and annual report, for example those in reference (ii), include approved projects of more than $1.5M.

Answer:

In the rate case, the development plan includes projects of more than $1.5M, when they are known at the time of developing the file. Énergir wants to emphasize that the development of plans and rate cases is usually performed more than 18 months in advance. It is very rare that projects of more than $1.5M are known at the time of filing. In the annual report, development plans *a priori* and *a posteriori* include approved projects of more than $1.5M. These projects are known at the time of filing the annual report.

15.3 From reference (i), please confirm that the net densification effect (line 70) on the IRR is the result of the subtraction of *Total a posteriori* in column (6) and the *New customers extension projects* in column (2).

Answer:

Énergir confirms this.

15.4 Please isolate, in the form of a table, the effect of densification by using data from reference (i) for 2009 to 2013 and for all markets. Please present the assumptions made and comment on the results.

Answer:

The table below shows the net effect of densification as mentioned in question 15.3.

Net effect of densification on IRR *a posteriori*
(original rates)

Development plan year	Residential (%)	Business (%)
2009	+0.13	+1.66
2010	+0.44	+1.08
2011	+0.76	+1.08
2012	+0.25	+0.63
2013	+0.71	+0.43
Average	**+0.46**	**+0.98**

The methodology used by Énergir for this *a posteriori* analysis is based on the methodology of the overall profitability *a posteriori* of the development plan *a priori* three years later (B-0076, Gaz Métro-14, Document 4, section 1.1, p. 1 and 2, and Appendix 1), except for the following work hypothesis:

> *"2. All densification sales related to the initial extension project were included in the a posteriori results, independently of the fiscal year of the development plan in which the sale was reported.*" (B-0178, Gaz Métro-7, Document 1, p. 7)

Énergir would like to bring to the attention of the Régie that in response to a request for information, it had explained the significance of this change in hypothesis (B-0298 Gaz Métro-9, Document 1, answer to question 9.6, p. 37 and 38).

From the previous table, the net effect of densification is positive for profitability *a posteriori* beyond the expectation included in the analysis. Indeed, Énergir wishes to recall that for all the years of the analysis (2009 to 2013) Énergir included potential customers in addition to those contractually committed (thus a form of future expectation). The analysis therefore makes it possible to demonstrate that, generally, additional densification takes place, in addition to potential customers already planned.

15.5 Please confirm that the profitability from reference (i) from the 2012 and 2013 residential market is 5.99 and 5.09% respectively. Please comment on these results in relation to minimum profitability objectives set in reference (iii).

Answer:

Énergir confirms this.

The profitability *a posteriori* of 5.99% and 5.09% is the result of extension projects paired with the profitability *a posteriori* of sales in densification (or on network) relating to original extension projects from 2012 and 2013. Énergir wants to mention that these sales in densification were not predicted in the 2012 and 2013 extension projects profitability *a priori.* For example, a sale on the network reported in 2014 which is related to a 2012 extension project has been included in the IRR *a posteriori* of 5.99% of 2012 sales in densification. Énergir draws the Régie's attention to the fact that according to the new sales methodology (minimum profitability objectives *a priori* and *a posteriori* of the development plan), this same sale declared in 2014 is included in the 2014 sales development plan. It is therefore not related to the profitability of an extension project from 2012 in the new sales methodology. The overall profitability *a posteriori* of the residential market in 2012 and 2013 was 9.89%[1] and 9.10%[2] respectively, it was included in the sales on network reported in 2012 and 2013 and these sales had not been included in another previous sales development plan. In summary, the profitabilities *a posteriori* of 5.99% and 5.09% for 2012 and 2013 do not take include the network sales made in 2012 and 2013 and do not come from previous development plans.

The minimum profitability objective for the residential market (6.28%) set for the 2016-2017 fiscal year represents the overall profitability *a priori* to reach for that year. As previously explained, the methodology of this minimal profitability objective for a fiscal year (in this case 2017) includes the profitability *a priori* from extension projects from 2017 as well as sales on the network which were not planned in these extension projects and which were declared in 2017. For example, a sale on the network reported in 2017, relating to a 2006 extension project from 2006 and which was not planned in the profitability *a priori* of this project in 2006, will contribute to the 2017 overall profitability *a priori*. The overall profitability *a priori* of the residential market in 2017 was 7.98%.

The overall profitability *a posteriori* of the residential market in 2012 (9.89%) and 2013 (9.10%) was therefore higher than the 2017 objective (6.28%).

15.6 Please define the non-profit generating activities mentioned in reference (iii).

Answer:

Énergir refers the Régie to the response to question 13.3.

[1] R-3831-2012, B-0056, Gaz Métro-13, Document 2.

[2] R-3871-2013, B-0066, Gaz Métro-13, Document 2.

15.7 Please comment on the appropriateness of limiting the total value of investments associated with projects which would have a PI of less than 1, to an annual budget set at $1M, $1.5M or $2M for example.

Answer:

For Énergir, the projects carried out within the framework of the proposed methodology having a PI between 0.8 and 1 are expected to be profitable, which benefits all of the customers. Énergir therefore indicates that since these projects are for the benefit of the customers, that they are evaluated according to a systematic and rigorous governance process considering only contractually incurred revenues, there is no need to restrict the number of these projects and associated investments under the proposed approach.

For repaving and industrial park projects with a predicted PI of less than 0.8, Énergir proposes to define the budget during the rate case in particular according to the estimate of needs and the level of overall profitability of the development plan (the overall development plan must reach a profitability index greater than or equal to 1.1). The setting of an annual budget, which is an additional internal governance measure, allows Énergir to contain the downward marginal impact on the overall profitability of projects with a PI of less than 0.8. For Énergir, it is essential to rigorously manage these projects in order to encourage the prioritization of the most promising projects, while promoting the achievement of the minimal overall PI target of 1.1. By "most promising," Énergir is referring to projects with the highest rate reduction expectations.

Number of projects and monitoring

16. References: (i) Exhibit B-0257, p. 6;
(ii) Exhibit B-0308, Appendix Q-8.1. p. 1 and 2;
(iii) Exhibit B-0258, p. 21;
(iv) Exhibit B-0293, p. 9;
(v) Exhibit B-0281, p. 14;
(vi) Exhibit B-0281, p. 16.

Preamble:

(i)

Projects approved in 2016 according to their profitability

	Projects between MAT and CCP	Projects greater than CPP	Total
Residential	9	83	92
CII	61	109	170
Industrial	0	2	2
Total	70	194	264

(ii)

Parameters		
		Historical growth
	CAGR 2009-2016	-2.57%
		Growth hypothesis
	CAGR 2017-2026	-3.86%
Gaz Métro does not plan to do a significant number of residential MAT projects		
		Average by extension
	MAT volume 2016	81,909
	Volume excluding MAT 2016	88,286
	MAT revenue 2016	32,319
	Revenue excluding MAT 2016	22,005

Résidentiel

Historique	2009	2010	2011	2012	2013	2014	2015	2016
Nombre de projets	48	70	62	60	42	45	35	40

Prévision	2017p	2018p	2019p	2020p	2021p	2022p	2023p	2024p	2025p	2026p
Nombre de projets	39	37	35	32	32	31	31	30	29	28
SMA	3	3	3	3	3	3	3	3	3	3
Hors SMA	36	34	32	29	29	28	28	27	26	25

Affaires

Historique	2009	2010	2011	2012	2013	2014	2015	2016
Nombre de projets								
Moins de 1,5 km	92	101	119	144	130	145	164	146
Plus de 1,5 km	3	3	9	7	3	6	15	6

Prévision	2017p	2018p	2019p	2020p	2021p	2022p	2023p	2024p	2025p	2026p
Nombre de projets										
Moins de 1,5 km	132	129	126	124	121	119	116	114	112	110
SMA	24	24	23	23	22	22	22	21	21	20
Hors SMA	108	105	103	101	99	97	94	93	91	90

(iii)

Number of customers and expected revenue from approved extenstions in 2016

By type

	Cumulative number of customers					Revenue *($000)*				
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 1	Year 2	Year 3	Year 4	Year 5
Residential project	**349**	**665**	**916**	**1,074**	**1,195**	**155**	**399**	**599**	**746**	**836**
Profitable	230	413	532	588	649	121	300	432	519	568
MAT	119	252	384	486	546	34	100	167	227	267
Business Projects	**196**	**235**	**240**	**242**	**245**	**1,220**	**1,345**	**1,426**	**1,445**	**1,461**
Profitable	128	161	165	166	167	1,009	1,111	1,174	1,186	1,192
MAT	58	64	65	66	68	211	234	252	259	269
MAT Industrial Park	10	10	10	10	10	0	0	0	0	0
MAT Repaving	0	0	0	0	0	0	0	0	0	0

(iv)

Direct costs expected from approved extensions in 2016
By type

	Direct costs *$ 000*					
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Residential project	**2,984**	**420**	**329**	**175**	**119**	**53**
Profitable	1406	214	124	38	57	0
MAT	1,579	206	205	137	62	53
Business Projects	**13 663**	**229**	**48**	**9**	**21**	**0**
Profitable	6792	175	40	1	0	0
MAT	3,448	54	7	8	21	0
MAT Industrial Park	3,185	0	0	0	0	0
MAT Repaving	237	0	0	0	0	0

(v) "*Consequently, the impact generated the New Method is expected to be closer to 9% from customers and 12% from revenue of the residential market as well as 18% from customers and 11% from revenue of business markets from the MAT method.*"

(vi) *"[...] It is also for this reason that Gaz Métro was not allowing for many MAT projects for the residential market.* "

Requests:

16.1 In references (ii), (v) and (vi), Énergir indicates that the number of planned MAT projects will not be significant for the 2017-2026 residential market. Please indicate whether this statement is still valid taking into account its new proposal and explain the details.

Answer:

Énergir confirms that this statement is maintained. In addition, Énergir refers to the answer to question 12.1 of the Régie's Request for Information No. 11, Exhibit B-0281, Gaz Métro-9, Document 9, in which it states that it is difficult for Énergir to forecast the scale and nature of projects over such a long period. In addition, it does not have a long history in MAT projects. In this case, Énergir has no history of proposed projects according to its New Method.

Énergir also mentions that the methodology for assessing profitability and the acceptance criteria for development projects proposed by Black & Veatch are based on several elements similar to the MAT Method that Énergir presented in Exhibits B-0178, Gaz Métro-7, Document 1 and B-0220, Gaz Métro-7, Document 2. In addition, the slightly higher impact of IRR resulting from the subtraction of project overhead costs, combined with the slightly

higher PI threshold of 0.8 than the MAT, means that the New Method should essentially allow for the same sales as those of the MAT.

16.2 Please justify the forecast of 3 residential projects and about 23 unprofitable CII projects expected between 2017-2026 in reference (ii).

Answer:

The acceptance of projects based on the MAT method started in 2016. In the previous years, Énergir had identified some interesting potential projects without carrying them out, which created an accumulation of MAT-type projects. In fact, it is logical to think that the total number of MAT projects carried out in 2016 is greater than that of a typical year in which only projects identified within a 12-month period are completed.

The forecast of the number of projects for 2017-2026 is based on the observation of the number of projects completed in 2016, the time interval over which the pipeline projects completed in 2016 was consolidated and the feedback from the sales force related to our potential customers.

As recalled in response to the previous question, it is difficult to predict the nature of the projects contemplated over a long period in a precise manner. Nevertheless, Énergir would like to mention that its 2017 forecast was accurate. Indeed, Énergir carried out 20 CII extension projects and 3 residential projects using the MAT method. For future years, Énergir therefore believes that its forecast is realistic.

16.3 In reference (i), Énergir indicates that the number of non-profitable projects for the 2016 fiscal year was 70 out of a total of 264. Please compare this information with that presented in references (ii), (v) and (vi).

Answer:

As specified in the response to question 16.2, the number of MAT projects *a priori* carried out in 2016 is higher with respect to a a future year, because it is the first implementation year of the MAT Method and there were pipeline projects identified. In future years, Énergir's forecast is lower than the number of projects completed in 2016, as identified in references (ii), (v) and (vi).

16.4 In reference (iii), Énergir indicates the number of customers expected as a result of the 2016 extensions. Please comment on the percentage of the number of residential MAT customers with those presented in references (ii), (iv) and (v).

Answer:

The number of residential MAT customers represents 34% of residential customers from extension projects in 2016 to year one and 46% to year five.

For the reasons specified in the response to question 16.2, Énergir's prediction for 2017-2026 is lower than the projects completed in 2016, as identified in references (ii) and (v). This was confirmed in the 2017 when the number of residential MAT customers represents 22% of residential customers from extension projects for 2017 to year one, and 31% to year five.

16.5 In reference (iv), direct costs for MAT projects in the residential and business market represents more than 50% of direct costs for the 2016 fiscal year. Please comment on this result, specifically by comparing this information with the elements presented in references (ii), (v) and (vi).

Answer:

MAT projects *a priori* have a more significant direct cost per customer than other *a priori* projects, especially because a significant number of MAT projects are industrial park projects for which no customer is considered. For MAT projects, the proportion of direct costs is higher than the proportion of the number of customers or revenue.

Nevertheless, as specified in the response to question 16.2, Énergir's forecast for 2017-2026 is lower than the projects completed in 2016, as identified in references (ii and (v). This was confirmed in 2017, when the direct costs associated with MAT projects a *priori* accounting for only 33% of the total direct costs in the residential sector at year 0 and 19% in the business sector at the year 0.

16.6 Taking into account the direct costs associated with non-profitable projects with expectancy (iv), from different forecasts regarding the number of planned projects (i), (ii), (iii) and (v) and the market objectives that Énergir proposes to maintain, please comment on the opportunity of limiting the number or total value of non-profitable projects with expectancy or developing the new methodology as a pilot project.

Answer:

Please refer to the response to question 15.7.

16.7 Please comment on the opportunity to include the Sales Major Industries market in the follow-up of the annual report a posteriori of the development plan.

Answer:

The Sales Major Industries market is generally very profitable because it generates significant revenue. According to decision D-2011-073 (p. 3), Énergir must carry out *a posteriori* monitoring of the Sales Major Industries market three years later when the *a priori* break-even point is greater than one year. Énergir believes that this monitoring is still relevant and does not see the need to systematically produce a follow-up for the Sales Major Industries market. Since the implementation of the profitability *a posteriori* of the sales development plan, the Sales Major Industries market has not posted a break-even point greater than one year.

16.8 Please comment on the opportunity to include the overall IRR (or PI) in the follow-up of the annual report a posteriori of the development plan.

Answer:

Énergir believes that it would be relevant to add the overall IRR (or PI) for all residential and business markets.

16.9 Please comment on the desirability of presenting in the annual report and the rate file a follow-up of the development plan, distinguishing between projects of less than $1.5M and projects greater than $1.5M.

Answer:

Énergir does not see the need for such a separate follow-up to the annual report or the rate case. For projects greater than $1.5 million, a follow-up for each of the projects approved by the Régie is already presented in the annual report, as required by the Régie in its decisions. As mentioned in response to question 15.2, the preparation of development plans and rate cases is generally performed more than 18 months in advance. It is very rare that projects of more than $1.5M are known at the time of filing. In addition, if a significant cost difference (more than 15%) compared to the initially projected costs should occur after the filing of the follow-up of projects over $1.5M in the annual report, Énergir would inform the Régie, as requested in the decisions.

16.10 In order to have relevant markers for analyzing the follow-up to the annual report, please comment on the desirability of providing per market the historical ratios (minimum, maximum and average) over 10 years for the following:

- Average volumes/customer;
- Average contribution/customer;

- Assets/customer;
- Grants/customer;

Answer:

Énergir doubts the relevance of using such markers and believes that the average ratios could prove difficult to compare from one development plan to another. Énergir wishes to bring to the attention of the Régie that the nature of the projects (extension projects with or without contribution), the mix of market segments and categories of buildings (more projects with condo towers for a given year for example) and the types of work required (connections, installation meters only, sales that do not require new installations, etc.) are elements that can significantly change the average ratios of a development plan. The objective of the profitability *a posteriori* exercise in the annual report is to measure the projected actual profitability of new sales compared to the expected profitability *a priori* for these same new sales and to explain the significant differences.

Methodology

17. References: (i) Exhibit B-0278, p. 17;
(ii) Exhibit B-0281, p 13;
(iii) Exhibit B-0281, p. 9, answer to question 8.2;
(iv) Exhibit B-0281, p. 5 and 6;
(v) Exhibit B-0281, p. 26, answer to question 19.1;
(vi) Exhibit B-0295, p. 22;
(vii) Exhibit B-0264, p. 12;
(viii) Exhibit B-0286, Appendix Q-3.6a- p. 1.

Preamble:

(i) « *As a utility operating in Ontario, Union Gas Limited complies with the regulations listed above when performing its economic test. Union Gas Limited is also required to perform its economic test for a 40-year period (or 20 years for large volume customers), per the E.B.O. 188 Decision.* »
(ii)

Customer	First year of consumption	Status
Serres Toundra	2016	Always active
Fibrek	2013	Always active
Québec Lithium	N/A	Waiting for consumption
Graymont	2012	Always active
Université de Sherbrooke (MiQro Innovation Centre)	2010	Always active
TRT-ETGO (Viterra Inc.)	2010	Always active
TCE	2006	Always active
AGC Flat Glass North America LTD.	2003	Ended in 2009 (6 years)
Harbison Walker (Resco)	2000	Always active
Magnola	1998	Ended in 2003 (5 years)
Valero	1993	Always active

(iii) *"In 2016, the average amount of investment required for industrial park and road repaving projects was approximately $150,000. Considering approximately ten projects, an envelope of $1.5M could be adequate to allow for the completion of these types of projects in a given year."*

(iv) *"In addition, Gaz Métro will respect these decision points, except in very rare cases. Such cases would result from the fact that it is essential that Gaz Metro be able to enjoy operational*

flexibility and discretionary leeway in the business decisions it makes in the normal course of its operations. To that end, Gaz Métro must be able to acquire assets that are useful for the operation of its network, while acting in accordance with the standard of prudence. Consequently, in certain exceptional circumstances, Gaz Métro could carry out projects outside these guidelines. "

(v) "*Gaz Métro uses contractual levers to protect investment. In particular, it establishes minimum annual requirements and penalties that are based on the costs of the pipe and the number of buildings or customers expected.* "

(vi) *"In step 2 of its governance process, Gaz Métro conducts sensitivity analyses to assess how many additional customers to those identified a priori will be required to achieve a profitability equivalent to a PI of 1. Gaz Métro specifies that costs are associated with these additional customers.* "

(vii) « *6.4. For each system-expansion project included in the development plans for years 2009 through 2011, please provide the number of customers by class that were counted in the profitability analysis as having "manifest an interest in connecting to the system."*

Answer:
Gaz Métro cannot answer this question since it does not include this information in its systems in the interest of potential customers."

(viii) Table: *calculation of the required income budget*

Requests:

17.1 Taking into account references (i) and (ii), please comment on the desirability of calculating the profitability of projects over a 20-year period Sale Major Industries projects. Make the connection with reference (ii) which shows that out of the most recent Sale Major Industries projects, 3 out of 11 customers would not have exceeded 20 years of service.

Answer:

Énergir believes that it is not desirable to make this proposed adjustment to the New Method on the basis of partial information. Énergir's proposal to maintain the 40-year analysis period is based on a set of information and expert evidence. Moreover, Énergir points out that no expert in this file proposes to treat Sale Major Industries customers differently from other clients on this element (see the joint report of experts Paul Chernick, Russel Feingold and William Perea Marcus in C-OC-0047). The experts from ROEÉ and OC even agree to maintaining a 40-year analysis period if the targeted PI of the overall development plan is 1.3 instead of 1.1.

In connection with reference i), a markup exercise highlights trends or practices that are generally used. For this purpose, please refer to the answer to question 10.1 in Exhibit

B-0319, Gaz Métro-9, Document 14 and Black & Veatch's evidence in Exhibit B-0278, Gaz Métro-7, Document 5 , p. 4 and 35 and Table 3:

> « *Black & Veatch recommends that* [Énergir] *continue using its current valuation period of forty (40) years, which is the most common valuation period utilized by the Peer Group utilities and reflects the average life of the capital placed into service during a system extension project.* »
>
> (p. 35)

In connection with reference ii), in answering the question, Énergir provided additional information which put the response in context. In addition to answering the question related to the last 20 years, Énergir mentioned that several Sale Major Industries customers are approaching or exceeding 40 years of service. Among Énergir's ten biggest clients, five have been active since the 60s and four since the 80s. It is an important information to take into account. Please also refer to the response to question 7.1 of the request for information No. 2 from CFIB (B-0257, Gaz Métro-9, Document 3). On the basis of all this information, Énergir is confident that the vast majority of natural gas connections will continue to be used for periods longer than 40 years. Énergir considers that the premise of 40 years is valid for all markets.

That said, Énergir allows itself to transcribe its answer to question 11.1 of the Régie's Request for Information No. 11, in Exhibit B-0281, Gaz Métro-9, Document 9, p. 12:

> *"Extension projects which affect the Sales Major Industries market generally imply investments of more than $1.5M and are therefore individually submitted to the Régie. Although we use a 40-year period as a premise,* [Énergir] *does a case-by-case analysis for Sales Major Industries customers to ensure the 40-year period is timely. It should be noted that* [Énergir] *has previously used profitability periods of less than 40 years, particularly for mining and biogas projects, which had a shorter operating period. "*

Énergir's position on this point has not changed.

17.2 Given reference (iii), please provide the number of repaving and industrial park projects completed in recent years as well as their investment amount. Please indicate if repaving and industrial park projects use evaluation parameters from the New Methodology.

Answer:

Please refer to the response to question 7.4.

17.3 Please specify the type of projects Énergir is referring to in (iv).

Answer:

Each case, each project is unique and it is difficult for Énergir to develop a definition that would cover all possible cases. However, Énergir considers it important to work to maintain good commercial relations with customers or developers who develop projects that lead to significant price reductions for Énergir's customers. So, in certain very specific cases, to preserve a positive customer/business relationship, it may be possible to accept an individual project with a PI under 0.8 without contribution if refusing the project would put future natural gas projects which would hugely benefit all Énergir's customers at risk.

17.4 Please indicate if the projects in reference (iv) will be presented separately and if they will be included in the proposed follow-ups to monitor densification. In the event that Énergir does not include any projects that do not respect the decision-making markers in its specific follow-up, please explain why.

Answer:

In each annual report, these projects will be identified and, where appropriate, justified. Énergir will also include these projects in the *a posteriori* six-year follow-up in aggregate with other projects with a PI between 0.8 and 1.

17.5 Please elaborate further on the nature of the penalties in reference (v). Please specify in particular whether the use of this contractual levers is discretionary or systematic.

Answer:

The assessment of the penalty is calculated systematically for extension projects based on the cost of the pipe divided by the number of customers considered to be using natural gas. These levers are used depending on the evolution of the construction of the buildings. In the event of non-compliance of the projected natural gas penetration rate, Énergir charges the developer or negotiates a new agreement ensuring the profitability of the project.

17.6 Please elaborate further on the nature and amounts associated with the costs mentioned in reference (vi).

Answer:

In order to evaluate the number of customers needed to reach a PI of 1, Énergir considers the average volumes as well as the average costs associated with the connection of a new customer in its sensitivity analysis. These costs vary according to the market type, but they are based on the possible customer type for the evaluated project.

17.7 Please explain if the internal governance process requires the inclusion of information on potential customers' expressions of interest (reference (vii)) in Énergir's system. In particular, make the connection with step 1 of the internal governance process: potential assessment.

Answer:

The internal governance process requires the gathering of information on the future densification potential of an extension project, including expressions of interest. Customers who have expressed interest and willingness to commit to a contract are included in Énergir's systems to evaluate the profitability of the project. Nevertheless, other expressions of interest, although included in project documentation, are not included in computer systems. In addition, as specified in step 5 of the internal governance process (B-0281, Gaz Métro-9, Document 9), the sales teams are monitoring projects that have identified opportunities for future densification. For example, at the start of the project, the status of vacant land will be monitored in subsequent years to check if there are planned constructions. It should also be noted that Customer Services documents calls for tenders received and this way allow to determine regions that are more conducive to the development of extension projects.

17.8 Please confirm that the IRR of the project presented in reference (viii) has a profitability of 0%. Please confirm that this project is an industrial park or road repaving project.

Answer:

Énergir confirms that the project in reference is an industrial park with a profitability of 0%.

Contributions

18. References: (i) File R-3992-2016, exhibitB-0075;
(ii) Exhibit B-0278, p. 18;
(iii) Exhibit B-0278, p. 41;
(iv) Exhibit B-0278, p. 28;
(v) Exhibit B-0278, p. 47.

Preamble:

(i) Comparison of development plan table - total sales cause 2016 versus actual, line 23.

(ii) *If economic test results in P.I. < 0.8, customer can make up the shortfall with CIAC. FortisBC may finance CIAC amounts, and also waive amounts less than $100.*

(iii) *Customers required to pay CIAC if the benefits do not cover the construction cost.*

(iv) Ensure that new customers are treated fairly and consistently.

(v) *System Extension Fund Pilot program. Customer may receive up to 50 % of the required CIAC or up to $10,000. Available from Jan 1, 2017 thru Dec 31, 2020. Applicable to projects with P.I. between 0.2 and 0.8. Customers receiving money from the fund are not eligible for refunds.*

Requests:

18.1 Please confirm that Énergir includes amount relating to customer contributions in each development plan as presented in reference (i).

Answer:

Énergir confirms this.

18.2 In reference (i), Énergir indicates that the majority of financial contributions only concern one customer. Please explain more specifically in connection with the previous question.

Answer:

As specified in question 15.2, Énergir wants to highlight that the preparation of development plans and rate cases is generally performed more than 18 months in advance. It is very rare that projects over $1.5M are known at the time of filing. The customer contribution *a priori* in 2016 is mainly attributable to a major Asbestos project, which explains the discrepancy

seen between the cause and the actual 2016. The customer contribution to the project is $3.7M, as specified in exhibit R-3958-2015, B-0022, Gaz Métro-1, Document 6, out of a total of $5.3M. Asbestos therefore represents 70% of customer contributions of the development plan *a priori* 2016, or 79% of the difference in business market customer contributions between the rate case and the actual 2016.

18.3 Please comment on the current practices of comparable Canadian companies with respect to customer contributions presented in references (ii) and (iii). Please comment on a similar application for Énergir.

Answer:

The distributors covered in references ii) and iii) can request contributions from customers if projects are not conforming to the defined criteria. For the two targeted distributors, contributions may be necessary if the PI is less than 0.8 for individual projects.

Énergir proposes a similar approach in references ii) and iii). Please refer to the answer to question 4.3 in Exhibit B-0281, Gaz Métro-9, Document 9.

- For individual development projects with densification potential, Énergir may require a contribution from the customer to achieve a PI of 0.8.
- For individual projects with no densification potential, Énergir may require a customer contribution to reach an PI of 1.
- Introduction of a budget of approximately $1.5M which will be accessible to reach a PI of 0.8 for industrial park and road repaving projects that have an expectation of future densification. This budget will be drawn from the overall profitability of the development plan.
- In exceptional circumstances, Énergir may carry out projects outside these boundaries, as described in the response to Question 4.3 of the Régie's Request for Information No. 11 (B-0281, Gaz Métro-9, Document 9) and in the answer to question 17.3 of this document.

Énergir also offers its clients financial terms when the payment of contributions is required. To that effect, please refer to the answer to question 18.5.

18.4 Please specify the decision-making elements that are used in an analysis of the possibility of requiring a financial contribution from a customer and how these elements fit into a fair and consistent approach and treatment as described in reference (iv). Please also indicate

which decision-making elements can justify not requesting contributions from the customer in a non-profitable extension project.

Answer:

A financial contribution may be required to reach a PI of 1 when there is no future potential and to reach a PI of 0.8 when there is future potential with an expectation of future profitability. The decision-making markers are therefore the achievement of a PI of 0.8 with future potential or 1 without future potential. In addition, please refer to the answer to question 18.3.

18.5 Please comment on Énergir's use of a fund similar to that used by Fortis BC (reference (v)).

Answer:

Énergir has already responded to similar question in this file. Please refer to the answer to question 21.1 in Exhibit B-0298, Gaz Métro-9, Document 1.

In addition, Énergir wants to add that it considers that its proposal is complete, fair and covers the vast majority of scenarios, as described in question 18.3. For Énergir, the projects carried out within the framework of the proposed methodology have a PI between 0.8 and 1 are expected to be profitable, which benefits all customers. (Please refer to the response to question 15.7.) Énergir therefore indicates that since these projects are for the benefit of the customers, it is not necessary to set up a fund similar to that of Fortis BC. As a result, projects with a PI of less than 1 without expectation or less than 0.8 with expectation may be subject to a contribution, as these may have an upward impact on rates.

18.6 Please specify if Énergir offers its clients financial terms when the payment of contributions is required. If yes, please elaborate on the terms. If not, please explain why.

Answer:

Yes, Énergir offers financial terms when the payment of contributions is required, in accordance with the terms set out in the *Conditions of Service and Rate* and in two scenarios, namely:

1) Article 4.3.2: Contribution of $300 payable in a single instalment or over 24 months.

"These connection fees are payable in one instalment or, when the applicant is a customer of the distributor, over a period of 24 months or, if the customer so requests, in a single payment. If the payment of the connection fee is spread over 24 months and the contract terminates before the full payment of the connection fee, the balance of these charges is due immediately."

2) Article 4.3.4: Payable in a single payment before the work is started or paid in instalments over the contract term.

"If a financial contribution is required, it shall be payable in a single payment before the work is started or paid in instalments over the contract term. The distributor shall provide the customer with the details of the financial contribution required."

19. Reference: File R-3987-2016, Exhibit B-0183, p. 23 and 24.

Preamble:

Text from Service Conditions and Rates

"4.3.4 FINANCIAL CONTRIBUTION FROM THE CUSTOMER
If the revenues generated from connection of the service address to the distribution system do not allow the distributor to earn a return on its investment, based on the estimated cost of the work required, in accordance with the conditions approved by the Régie de l'énergie, the distributor may, on entering into the contract, agree with the customer on a financial contribution payable by the customer.

Any service connection charge under Article 4.3.2 shall be additional to this contribution. The distributor may also agree with the customer on a minimum annual obligation.

If a financial contribution is required, it shall be payable in a single payment before the work is started or paid in instalments over the contract term. The distributor shall provide the customer with the details of the financial contribution required.

If a financial contribution is required, the distributor and the customer shall agree before the work is started on matters including:

1. *the amount of the financial contribution requested from the customer;*
2. *the terms of payment of the financial contribution requested from the customer;*
3. *the conditions for repayment, in whole or in part, of the contribution requested from the customer, where applicable.*

The distributor may repay, in whole or in part, in accordance with certain profitability conditions set out in writing when the contract is entered into, the financial contribution paid by the customer to make the investment economic.

Notwithstanding the payment of a financial contribution by the customer, the distributor shall remain the exclusive owner of the distribution system." [Our underlying]

Requests:

19.1 Please comment on the desirability of requiring contributions for each of the projects which have a PI of less than 1, taking into account that a reimbursement *a posteriori* could be granted to these clients when the Distributor would connect more volumes than originally planned for this project as provided in reference.

Answer:

The methodology presented by Énergir is supported by an expert report that proposes to use a profitability index approach used by Fortis BC, Union Gas Limited and Enbridge Gas Distribution to align the project acceptance threshold with the current approach used by comparable gas utilities in Canada. Moreover the other experts in this file support this proposal, which is to accept projects with PIs of less than 1 with expectation, and without asking for contribution. Here is an excerpt from the experts' joint report on page 3 of Exhibit C-OC-0047:

> « *All three experts agree (in Row 3) that the project profitability (the "Profitability Index" or "P.I.") threshold for individual projects should be 1.0 for projects without the potential for future densification. For projects with future densification potential,* [Énergir] *and OC agree on a P.I. of 0.8, while ROEÉ could have a range of thresholds from 0.6 to 1, depending on the project characteristics.* »

Énergir also recalls that only contractually incurred revenues are considered in the profitability analysis and that the future expectation is evaluated from a systematic and rigorous governance process.

Énergir considers that the "opportunity" presented by the Régie is in fact equivalent to the status quo and would not meet the development challenges addressed by the New Method. These development issues were even taken up by the Régie in its Notice A-2017-01 to MÉRN in file R-3972-2016, A-0038, page 113:

> *"[319] Gazifère and [Énergir] want a change in the regulatory framework with respect to extensions of their distribution network. [Énergir] is of the opinion that it is essential to use all available pricing and regulatory tool to facilitate access to natural gas to customers who do not currently have access to it. These two distributors indicate the growing difficulty of making network extension projects profitable under the current regulatory framework because of high marginal costs they face and need to obtain a priori the guarantees of volumes of gas consumed by a sufficiently large number of customer without being able to take into account future growth.*"

For future customers, the billing of a contribution, even with a possibility of reimbursement, is a major obstacle to the use of natural gas. This situation would prevent Énergir from benefiting from savings of scale and incurring rate reductions for all customers.

Énergir's proposition, which is supported by experts in the file, allows Énergir to address a development issue by avoiding the unnecessary billing of contributions for projects with a future expectancy and therefore, profitable. This has the main advantage of not having future clients unfairly support costs, by billing a contribution that is not necessary.

19.2 In the event that the Régie would accept the New Method, please confirm the Régie's understanding of the following elements of the application of the method for projects under $1.5M:

1- The method would be applied to every extension project;

Answer:

Yes, apart from very specific cases (please refer to the response to question 17.3).

2- The Distributor would select each of the chosen projects based on this methodology;

Answer:

Yes, apart from very specific cases (please refer to the response to question 17.3).

3- The selected projects would then be presented overall to the Régie in the development plan as part of the rate case.

Answer:

Énergir will file a forecast development plan for the rate case and will seek approval for investments of less than $1.5M. At this stage, new sales projects are not usually known. This exercise is on a provisional basis. During the year, Énergir will sign and connect new

customers to the network by applying the New Method. In the annual report, Énergir will present the follow-up of the development plan based on actual sales under the New Method.

PI AND IRR

20. Reference: Exhibit B-0293, p. 12.

Preamble:

Finally, it should be noted that, in accordance with the Régie's decision D-97-25, Gaz Métro, like the OEB, uses a discount rate in the assessment of project profitability corresponding to weighted average prospective capital cost after tax. However, Gaz Métro noted that the calculation of this rate for the 2017 rate case, and for several years, was done by considering the rate of prospective debt before tax rather than after tax, which slightly overestimates the weighted average prospective capital cost. The calculation will be corrected from the 2019 rate file.

Requests:

20.1 Please confirm whether in the proposed New Method, the prospective capital cost after tax is used as an input. If so, please explain the details.

Answer:

Énergir confirms that the prospective capital cost (PCC) after tax (5.01% for 2017-2018) is not used as an input in the New Method except for the calculation of the PI which, it should be remembered, is the ratio between the current value of the cash flow of operation and the present value of the monetary flow of investment. In this one case, the PCC after tax (5.01 %) is used as a discount rate.

For greater clarity, the PCC after tax does not contribute to the calculation of the cash flow (used as a basis for calculating the IRR), the rate contribution (where the discount rate stays at the PCC rate of 5.43% in 2017-2018) and the rate breakeven point. Nor does it contribute to the calculation of the rate base return, which is one of the elements of the cost of service, and therefore of the required revenue. The rate base return is always calculated using the PCC of 5.43%.

Please also refer to Énergie's responses to the Régie's requests for information in the following files:

- R-4020-2017: B-0028, Énergir-2, Document 2, answer to question 1.3;
- R-4021-2017: B-0016, Énergir-2, Documents 1, answers to questions 3.2 and 3.3; and
- R-4022-2017: B-0015, Énergir-2, Document 1, answers to questions 4.2 to 4.4.

20.2 Please file an example of the cash flow calculation for a network extension project under the New Method. Please provide the complete file in Excel format.

Answer:

Please find in Appendix Q-20.2, the spreadsheet for a network extension project under the New Method.

Marginal supply, transportation and load-balancing costs

21. References: (i) Exhibit B-0298, p. 11 and 12.
(ii) Decision D-2014-201, p. 52 and 53.

Preamble:

(i) *"2.8 For each supply, transportation and load-balancing service, please indicate whether the marginal costs associated with a project can differ from the average cost of the Distributor's supply portfolio. Please explain your answer.*

Answer:
In the margin, some distribution projects may incur marginal supply , transportation and load-balancing costs that differ from average costs. But in any event, since these costs are fully transferred to customers through adjustments to supply, transmission and balancing rates, if any, they have no impact on the profitability of the transmission. project. Since marginal supply, transport and load-balancing costs are offset by equivalent revenue, they have no impact on the IRR of distribution projects and do not have to be taken into account in the analysis of economic profitability of distribution projects."

(ii) *"[197] In this difficult context, the Distributor has accepted that a significant volume of interruptible service customers migrate, during the contract, to the continuous service without taking into account the cost of this migration on the transmission and balancing rates. The overall net impact of this migration is estimated at $19.6 million. Thus, for an additional volume of 11.7 106m³, it costs 16.7 ¢ / m³. This unit cost is important when compared to the unit transportation and balancing revenue paid by D4 and D5 customers.*
[…]

[201] The Régie is of the opinion that the notion of profitability to which the Distributor refers to should also take into account the rate impact of these migrations, during the course of the contract, on the transportation and balancing rates. "

Request:

21.1 Insofar as the Régie considers that the method of evaluating the profitability of extension projects should take into account the marginal supply, transport and balancing costs, please comment on the advisability of setting the value of these marginal costs in the context of Phase 2 of this file.

Answer:

If the Régie comes to the conclusion that the method of evaluating the profitability of extension projects should take into account the marginal supply, transportation and load-

balancing costs, Phase 2 of this file could be a forum to discuss it. However, with many important topics already part of Phase 2, Énergir is concerned about the delay that the study of other elements could bring.

This being said, Énergir maintains that the method of evaluating the profitability of expansion projects does not have to take into account the supply, transportation and load-balancing costs. When a new extension project is analyzed, Énergir must consider that the costs inherent to the supply, transmission and balancing services will be covered by the revenues generated in these same services. They do not have to be considered in the profitability analysis.

As mentioned in reference (i), although it is possible that some extension projects may incur marginal supply, transport and load-balancing costs different from the average cost of the portfolio of the tools held, which are therefore different from the rates in effect, such cases would be very rare, with a very small effect and for a very short (temporary) duration. Indeed, in the case of supply, transport and balancing services, the "user-pay" principle must be respected and cross-subsidization must be as close as possible to zero. Thus, Énergir aims to set the rates for these services so that they are as close as possible to the market price.

Énergir considers that the marginal impact of an increase in consumption by an existing customer or a new customer on the price paid is marginally negligible, or even nil, for the vast majority of cases. Thus, the arrival of a new customer usually has a non-significant effect on the procurement tools.

Énergir recognizes that connecting a larger customer with large sourcing tools may have an impact on average cost. However, Énergir notes that such exceptional cases will now be mitigated by the excess capacity margin for transport to foster the development of industrial activities. Since this room for manoeuvre is already part of the procurement tools, the impact will be zero on the average cost. In addition, in the event of an exceptional situation where excess capacity is not sufficient, the use of short-term procurement tools, the costs which could be deferred from the average cost, would only be temporary pending the delivery of new capacity on the privileged sections for supplies.

Meters

22. References: (i) Exhibit B-0298, p. 9 and 10.
(ii) Exhibit B-0072, p 11 and 12.

Preambles:

(i) Question 2.4 from the Régie's request for information 9.

"2.4 For assets with a shorter amortization period than the life of the project, please indicate whether reinvestments are planned in the model at the end of the depreciation period of those assets. For example, if a meter has a five-year amortization period, please indicate whether the model provides for meter expenditure reinvestments every five years. Please explain your answer.

Answer:
First, as explained in the answer to question 2.1, the project profitability calculation software is based on the required revenue method. This tool makes it possible, on the one hand, to evaluate the internal rate of return generated by a project, and on the other hand, to evaluate the impact and the break-even point of the same project, hence the name "required income tool." As a result, the profitability calculation software is directly aligned with Gaz Métro's required revenue determination method from the rate file.

Number of asset class	Name of asset class	Depreciation period	Lifespan (Note 1)
Z1102	Building connections - direct plastic	19.42 years	50 years
Z1104	Previous connections - inserted plastic	18 years	35 years
Z1105	Previous connections - steel	13.83 years	35 years
Z1150	Main pipes - steel	31.92 years	45 years
Z1200	Meters	13.92 years	18 years

Note 1: R-3879-2014, B-0466, Gaz Métro-107, Document 11, appendix A, page IV-4, column 4. The first two figures represent the lifespan of this asset class.

As a result, the profitability assessment model does not include reinvestment of assets with depreciation periods of less than 40 years. The study of depreciation rates (R-3879-2014, B-0466,

Gaz Métro-107, Document 11) considers, among other things, the fact of being in a "pool" of assets: for each category of fixed assets, there are assets acquired for several years (already in use) and new assets that are added annually. The average useful life of all these assets (old and new) is calculated to establish the depreciation period of the class.

The new asset considered in the profitability assessment tool still has a remaining useful life and this asset generates revenue even though it is fully depreciated in the profitability assessment model. For this reason, we do not expect reinvestment after the end of the depreciation period. "

(ii) Question 2.9 from the Régie's request for information 2.

"*2.9. Based on the reference (v):*

2.9.1. Please provide a detailed example of the calculation process leading to the unit cost per meter type. This example must include any element that has an impact on the calculation of the unit cost, including the method of calculating the useful life, updating costs, etc.

Answer:
Here is the information that Gaz Métro disposes of to calculate an average unit cost per type of meter.

Meter type	Number (autumn 2013)	Useful Lifespan	Average acquisition cost 2010-2013	Average cost: measuring equipment	Body (%)	Measuring (%)	Average annual cost
S6	129 827	20	76	68	52%	48%	7
S20	37 401	20	160	68	70%	30%	11
S40-50	18 223	7	509	68	88%	12%	76
R60-80	5773	12	1,124	137	89%	11%	101
R140	2 436	12	1,138	137	89%	11%	102
R200	1,195	12	1,391	137	91%	9%	123
R300	779	12	1,673	137	92%	8%	146

Meter type	Number (autumn 2013)	Useful Lifespan	Average acquisition cost 2010-2013	Average cost: measuring equipment	Body	Measuring	Average annual cost
R450	327	12	1,842	137	93%	7%	160
R650	13	12	2,474	137	95%	5%	213
R1100-1600	17	12	4,546	137	97%	3%	386
T4	40	5	1,446	2,668	35%	65%	423
T6	22	5	1,785	2,668	40%	60%	490
T8	7	5	1,536	2,668	37%	63%	441
T12	4	5	2,754	2,668	51%	49%	684

*Lifespan must be revised

Requests:

22.1 Please indicate how the Distributor calculates the cost of meters for a project for each of the residential, commercial and industrial markets. Please provide a numerical example by market.

Answer:

The cost of the meters used in the calculation of a project is determined according to a cost schedule by type of meter. This grid is evaluated according to a weighted average of meters purchased and recycled per type of meter in the last two years. The type of meter is determined based on the customer's need for capacity and not on the market. For example, if a project had two clients, each client's capacity needs would be assessed regardless of their market. In the case of a small customer, residential or business, requiring a S6-type meter, a $144 fee would be considered: i.e. $76 for the acquisition cost and $68 for the metering equipment. If the second client had greater capacity requirements, whether residential or business, and required a S20-type meter, a $228 fee would be considered, i.e. $160 for the acquisition cost and $68 for measuring equipment. In total, fees of $372, i.e. $144 plus $228, would be considered for meter costs.

22.2 Please confirm that the 13.92-year depreciation period for reference (i) meters is an average depreciation rate for the Distributor's entire meter fleet.

Answer:

Énergir uses the straight-line depreciation method, based on a specific rate per asset class. Depreciation rates are based on the remaining life of the assets. This method takes into consideration the historical value of the investments, the costs of past withdrawals, the forecast of future withdrawals, the value of accumulated depreciation and the remaining life of the asset.

Énergir uses the ELG (equal life group) method to determine its depreciation rates. The ELG method takes into account the fact that in an asset class, for a given year, certain assets are withdrawn before reaching the projected life for various reasons. The lifespan of the class is therefore established using the sum of the average lifespans, which takes into account the history of withdrawals per year of acquisition (R-3879-2014, B-0466, Gaz Métro- 107, Document 11).

22.3 To the extent that, as indicated in reference (ii), the Distributor has different types of meters which costs and useful lifespans vary considerably from one type of meter to another, in such a context, please comment on the desirability of reinvestments in the model based on the useful lifespan of each of these assets.

Answer:

Énergir has already answered this question and refers to the answer to question 13.1 of the Régie's Request for Information No. 11 (B-0281, Gaz Métro-9, Document 9).

Extension Project - New Method

(In dollars)

2017-2018 Parameters		
Booked depreciation - Pipes	45,2	years
Booked depreciation - Connections	21,0	years
Capital cost allowance - Pipes	6,0%	
Capital cost allowance - Connections	6,0%	
Fees to the Union of municipalities	0,0%	
Corporate overheads	0,00%	
Tax on public services	1,5%	
Royalty rate to the Régie de l'énergie ($/10³m³)	0,56749	
Royalty rate to the Régie du bâtiment ($/10³m³)	0,46200	
Tax rate (fed. + prov.) - Year 1	26,73%	
Tax rate (fed. + prov.) - Year 2	26,63%	
Tax rate (fed. + prov.) - Year 3	26,53%	
Tax rate (fed. + prov.) - Year 4 and +	26,50%	
Statutory operating cost	According to marginal cost grid	
Cost of debt	2,970%	
Cost of equity (ord. + priv.)	8,311%	
Debt proportion	54,0%	
Equity proportion (ord. + priv.)	46,0%	
Weighted prospective capital cost	5,43%	
Weighted prospective capital cost after tax	5,01%	

Statutory Marginal Cost Grid 2017-2018		Year 1	ear 2 and +	Pipes
Residential				
	Network extension	135,26	72,90	0,59 $/m
	Load addition	56,55	0,00	0,00 $/m
CII				
	Network extension	338,76	189,84	0,59 $/m
	Load addition	90,21	0,00	0,00 $/m
Sales Major Industries				
	Network extension	1 844,53	1 780,86	0,59 $/m
	Load addition	62,79	9,31	0,00 $/m

Section 1 - Inputs

Item		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1.1 Clients - Volume of sales - Rates - Revenues			**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**
Number of customers			10	20	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
Volume of sales in m³			800 000	1 500 000	2 000 000	2 000 000	2 000 000	2 000 000	2 000 000	2 000 000	2 000 000	2 000 000	2 000 000	2 000 000	2 000 000	2 000 000	2 000 000	2 000 000	2 000 000	2 000 000	2 000 000	2 000 000
Distribution rates (in ¢ per m³)			17,0000	15,0000	14,0000	14,0000	14,0000	14,0000	14,0000	14,0000	14,0000	14,0000	14,0000	14,0000	14,0000	14,0000	14,0000	14,0000	14,0000	14,0000	14,0000	14,0000
Distribution revenues			136 000	225 000	280 000	280 000	280 000	280 000	280 000	280 000	280 000	280 000	280 000	280 000	280 000	280 000	280 000	280 000	280 000	280 000	280 000	280 000
1.2 Investment (capitalizable)		**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**
Pipe fees - Base		2 500 000	0	0	0	0																
Pipe fees - Contractor expenses		0	0	0	0	0																
Pipe fees - Total		2 500 000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Connection fees - Base		300 000	150 000	75 000	0	0																
Connection fees - Contractor expenses		0	0	0	0	0																
Connection fees - Meter(s) cost		20 000	12 000	6 000	0	0																
Connection fees - Total		320 000	162 000	81 000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-depreciable asset (land) including overheads		5 000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fees to the Union of municipalities		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Corporate overheads		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2 825 000	**162 000**	**81 000**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
CRP- 10 ans			50 000	70 000	10 000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Network connection contributions	Short ...	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
External subsidies	Short ...	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Customer contributions	Short ...	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total - Investment	**3 198 000**	**2 825 000**	**212 000**	**151 000**	**10 000**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
1.3 Operating costs			**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**
Customer type: CII		Number of customers	10	20	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
Project type: Extension		Number of clients in the previous year	0	10	20	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
Number of metres of pipes: 10 000		Customers 1st year	10	10	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Customers 2nd year	0	10	20	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
Statutory operating costs according to grid			9 288	11 186	13 084	11 595	11 595	11 595	11 595	11 595	11 595	11 595	11 595	11 595	11 595	11 595	11 595	11 595	11 595	11 595	11 595	11 595
Specific operating costs			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total - Operating costs			**9 288**	**11 186**	**13 084**	**11 595**	**11 595**	**11 595**	**11 595**	**11 595**	**11 595**	**11 595**	**11 595**	**11 595**	**11 595**	**11 595**	**11 595**	**11 595**	**11 595**	**11 595**	**11 595**	**11 595**

Item	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
1.1 Clients - Volume of sales - Rates - Revenues	**2039**	**2040**	**2041**	**2042**	**2043**	**2044**	**2045**	**2046**	**2047**	**2048**	**2049**	**2050**	**2051**	**2052**	**2053**	**2054**	**2055**	**2056**	**2057**	**2058**
Number of customers	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
Volume of sales in m³	2 000 000	2 000 000	2 000 000	2 000 000	2 000 000	2 000 000	2 000 000	2 000 000	2 000 000	2 000 000	2 000 000	2 000 000	2 000 000	2 000 000	2 000 000	2 000 000	2 000 000	2 000 000	2 000 000	2 000 000
Distribution rates (in ¢ per m³)	14,0000	14,0000	14,0000	14,0000	14,0000	14,0000	14,0000	14,0000	14,0000	14,0000	14,0000	14,0000	14,0000	14,0000	14,0000	14,0000	14,0000	14,0000	14,0000	14,0000
Distribution revenues	280 000	280 000	280 000	280 000	280 000	280 000	280 000	280 000	280 000	280 000	280 000	280 000	280 000	280 000	280 000	280 000	280 000	280 000	280 000	280 000
1.2 Investment (capitalizable)	**2039**	**2040**	**2041**	**2042**	**2043**	**2044**	**2045**	**2046**	**2047**	**2048**	**2049**	**2050**	**2051**	**2052**	**2053**	**2054**	**2055**	**2056**	**2057**	**2058**
Pipe fees - Base																				
Pipe fees - Contractor expenses																				
Pipe fees - Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Connection fees - Base																				
Connection fees - Contractor expenses																				
Connection fees - Meter(s) cost																				
Connection fees - Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-depreciable asset (land) including overheads	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fees to the Union of municipalities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Corporate overheads	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
CRP- 10 ans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Network connection contributions	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
External subsidies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Customer contributions	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total - Investment	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
1.3 Operating costs	**2039**	**2040**	**2041**	**2042**	**2043**	**2044**	**2045**	**2046**	**2047**	**2048**	**2049**	**2050**	**2051**	**2052**	**2053**	**2054**	**2055**	**2056**	**2057**	**2058**
Number of customers	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
Number of clients in the previous year	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
Customers 1st year	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Customers 2nd year	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
Statutory operating costs according to grid	11 595	11 595	11 595	11 595	11 595	11 595	11 595	11 595	11 595	11 595	11 595	11 595	11 595	11 595	11 595	11 595	11 595	11 595	11 595	11 595
Specific operating costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total - Operating costs	**11 595**	**11 595**	**11 595**	**11 595**	**11 595**	**11 595**	**11 595**	**11 595**	**11 595**	**11 595**	**11 595**	**11 595**	**11 595**	**11 595**	**11 595**	**11 595**	**11 595**	**11 595**	**11 595**	**11 595**

Section 2 - Calculation grid

Item		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
2.1 Service cost			**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**
Operating costs			9 288	11 186	13 084	11 595	11 595	11 595	11 595	11 595	11 595	11 595	11 595	11 595	11 595	11 595	11 595	11 595	11 595	11 595	11 595	11 595
Tax on public services			41 917	44 043	43 981	42 555	41 128	39 701	38 275	36 848	35 422	33 995	32 644	31 397	30 165	28 934	27 702	26 471	25 239	24 007	22 776	21 544
Royalties			824	1 544	2 059	2 059	2 059	2 059	2 059	2 059	2 059	2 059	2 059	2 059	2 059	2 059	2 059	2 059	2 059	2 059	2 059	2 059
Fixed assets depreciation			75 559	90 257	95 105	95 105	95 105	95 105	95 105	95 105	95 105	95 105	90 105	83 105	82 105	82 105	82 105	82 105	82 105	82 105	82 105	82 105
Income tax			34 236	8 211	10 820	12 252	14 372	16 286	18 007	19 545	20 913	22 120	23 210	24 241	25 194	26 028	26 744	27 349	27 850	28 253	28 564	28 789
Return			153 226	160 987	161 898	156 901	151 737	146 573	141 409	136 244	131 080	125 916	120 887	116 185	111 699	107 241	102 783	98 324	93 866	89 408	84 949	80 491
Total - Service cost			**315 049**	**316 228**	**326 948**	**320 468**	**315 997**	**311 320**	**306 450**	**301 397**	**296 174**	**290 790**	**280 501**	**268 582**	**262 818**	**257 962**	**252 989**	**247 904**	**242 715**	**237 428**	**232 049**	**226 584**
2.2 Rate base			**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**
Decrease in regulatory fairness			1 456	-65 751	-7 719	42 333	43 748	43 748	43 748	43 748	43 748	43 748	42 598	39 838	37 998	37 768	37 768	37 768	37 768	37 768	37 768	37 768
Repayment of regulatory debt			1 709	-77 187	-9 061	49 695	51 357	51 357	51 357	51 357	51 357	51 357	50 007	46 767	44 607	44 337	44 337	44 337	44 337	44 337	44 337	44 337
Equity		1 299 500	1 298 044	1 363 796	1 371 515	1 329 182	1 285 433	1 241 685	1 197 936	1 154 188	1 110 439	1 066 691	1 024 092	984 254	946 256	908 487	870 719	832 950	795 182	757 413	719 645	681 876
Debt		1 525 500	1 523 791	1 600 978	1 610 039	1 560 344	1 508 987	1 457 630	1 406 273	1 354 916	1 303 559	1 252 202	1 202 196	1 155 429	1 110 822	1 066 485	1 022 148	977 811	933 474	889 137	844 800	800 463
Total - Average base rate		**2 825 000**	**2 821 836**	**2 964 774**	**2 981 554**	**2 889 526**	**2 794 420**	**2 699 315**	**2 604 210**	**2 509 104**	**2 413 999**	**2 318 893**	**2 226 288**	**2 139 683**	**2 057 077**	**1 974 972**	**1 892 866**	**1 810 761**	**1 728 656**	**1 646 550**	**1 564 445**	**1 482 340**
2.3 Booked and capital cost allowance depreciation		**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**
Additions after UMO fees, overheads and contributions/subsidies are broken down																						
Breakdown of UMQ - Pipes		*89,3%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*
Breakdown of UMQ - Connection		*10,7%*	*100,0%*	*100,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*
Breakdown of overheads - Pipes		*88,7%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*
Breakdown of overheads - Connection		*11,3%*	*100,0%*	*100,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*
Breakdown of contributions/subsidies - Pipes		*81,62%*	*81,6%*	*81,6%*	*81,6%*	*81,6%*	*81,6%*	*81,6%*	*81,6%*	*81,6%*	*81,6%*	*81,6%*	*81,6%*	*81,6%*	*81,6%*	*81,6%*	*81,6%*	*81,6%*	*81,6%*	*81,6%*	*81,6%*	*81,6%*
Breakdown of contributions/subsidies - Connections		*18,38%*	*18,4%*	*18,4%*	*18,4%*	*18,4%*	*18,4%*	*18,4%*	*18,4%*	*18,4%*	*18,4%*	*18,4%*	*18,4%*	*18,4%*	*18,4%*	*18,4%*	*18,4%*	*18,4%*	*18,4%*	*18,4%*	*18,4%*	*18,4%*
	Total																					
Pipe fees - Total	**2 500 000**	2 500 000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Connection fees - Total	**563 000**	320 000	162 000	81 000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-depreciable asset (land)	**5 000**	5 000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CRP- 10 ans	**130 000**		50 000	70 000	10 000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3 198 000	**2 825 000**	**212 000**	**151 000**	**10 000**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Booked depreciation																						
Amort. - Frais de conduites - Total	45,2 ans		-55 355	-55 355	-55 355	-55 355	-55 355	-55 355	-55 355	-55 355	-55 355	-55 355	-55 355	-55 355	-55 355	-55 355	-55 355	-55 355	-55 355	-55 355	-55 355	-55 355
Amort. - Connection fees - Total	21,0 ans		-15 204	-22 902	-26 750	-26 750	-26 750	-26 750	-26 750	-26 750	-26 750	-26 750	-26 750	-26 750	-26 750	-26 750	-26 750	-26 750	-26 750	-26 750	-26 750	-26 750
Deprec. - CRP 10 ans	10,0 ans		-5 000	-12 000	-13 000	-13 000	-13 000	-13 000	-13 000	-13 000	-13 000	-13 000	-8 000	-1 000	0	0	0	0	0	0	0	0
			-75 559	**-90 257**	**-95 105**	**-95 105**	**-95 105**	**-95 105**	**-95 105**	**-95 105**	**-95 105**	**-95 105**	**-90 105**	**-83 105**	**-82 105**	**-82 105**	**-82 105**	**-82 105**	**-82 105**	**-82 105**	**-82 105**	**-82 105**
Booked net fixed assets		**2 825 000**	**2 961 441**	**3 022 184**	**2 937 078**	**2 841 973**	**2 746 868**	**2 651 762**	**2 556 657**	**2 461 551**	**2 366 446**	**2 271 341**	**2 181 235**	**2 098 130**	**2 016 025**	**1 933 919**	**1 851 814**	**1 769 708**	**1 687 603**	**1 605 498**	**1 523 392**	**1 441 287**
Final net fixed assets for calculating the TSP			**2 794 441**	**2 936 184**	**2 932 078**	**2 836 973**	**2 741 868**	**2 646 762**	**2 551 657**	**2 456 551**	**2 361 446**	**2 266 341**	**2 176 235**	**2 093 130**	**2 011 025**	**1 928 919**	**1 846 814**	**1 764 708**	**1 682 603**	**1 600 498**	**1 518 392**	**1 436 287**
FNACC - Pipe fees - Total		2 500 000	2 425 000	2 279 500	2 142 730	2 014 166	1 893 316	1 779 717	1 672 934	1 572 558	1 478 205	1 389 512	1 306 142	1 227 773	1 154 107	1 084 860	1 019 769	958 583	901 068	847 004	796 183	748 412
FNACC - Connection fees - Total		320 000	310 400	448 916	500 551	470 518	442 287	415 750	390 805	367 356	345 315	324 596	305 120	286 813	269 604	253 428	238 222	223 929	210 493	197 864	185 992	174 832
		2 820 000	**2 735 400**	**2 728 416**	**2 643 281**	**2 484 684**	**2 335 603**	**2 195 467**	**2 063 739**	**1 939 915**	**1 823 520**	**1 714 109**	**1 611 262**	**1 514 586**	**1 423 711**	**1 338 288**	**1 257 991**	**1 182 512**	**1 111 561**	**1 044 867**	**982 175**	**923 245**
Capital cost allowance	Rate																					
Amort. fiscal - Frais de conduites - Total	6,0%		-75 000	-145 500	-136 770	-128 564	-120 850	-113 599	-106 783	-100 376	-94 353	-88 692	-83 371	-78 368	-73 666	-69 246	-65 092	-61 186	-57 515	-54 064	-50 820	-47 771
Amort. fiscal - Frais de branchements - Total	6,0%		-9 600	-23 484	-29 365	-30 033	-28 231	-26 537	-24 945	-23 448	-22 041	-20 719	-19 476	-18 307	-17 209	-16 176	-15 206	-14 293	-13 436	-12 630	-11 872	-11 160
CCA - CRP 10 years	10 years		-5 000	-12 000	-13 000	-13 000	-13 000	-13 000	-13 000	-13 000	-13 000	-13 000	-8 000	-1 000	0	0	0	0	0	0	0	0
			-89 600	**-180 984**	**-179 135**	**-171 597**	**-162 081**	**-153 136**	**-144 728**	**-136 824**	**-129 395**	**-122 411**	**-110 847**	**-97 676**	**-90 875**	**-85 423**	**-80 297**	**-75 479**	**-70 951**	**-66 694**	**-62 692**	**-58 931**
2.4 Income tax			**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**
Net booked unrealized gain			107 886	113 351	113 992	110 474	106 838	103 202	99 565	95 929	92 293	88 657	85 117	81 805	78 647	75 508	72 369	69 230	66 091	62 952	59 813	56 674
Booked depreciation			-75 559	-90 257	-95 105	-95 105	-95 105	-95 105	-95 105	-95 105	-95 105	-95 105	-90 105	-83 105	-82 105	-82 105	-82 105	-82 105	-82 105	-82 105	-82 105	-82 105
Capital cost allowance			-89 600	-180 984	-179 135	-171 597	-162 081	-153 136	-144 728	-136 824	-129 395	-122 411	-110 847	-97 676	-90 875	-85 423	-80 297	-75 479	-70 951	-66 694	-62 692	-58 931
Tax rate			26.73%	26.63%	26.53%	26.50%	26.50%	26.50%	26.50%	26.50%	26.50%	26.50%	26.50%	26.50%	26.50%	26.50%	26.50%	26.50%	26.50%	26.50%	26.50%	26.50%
1 - tax rate			73.27%	73.37%	73.47%	73.50%	73.50%	73.50%	73.50%	73.50%	73.50%	73.50%	73.50%	73.50%	73.50%	73.50%	73.50%	73.50%	73.50%	73.50%	73.50%	73.50%
Rates (gross-up)			**34 236**	**8 211**	**10 820**	**12 252**	**14 372**	**16 286**	**18 007**	**19 545**	**20 913**	**22 120**	**23 210**	**24 241**	**25 194**	**26 028**	**26 744**	**27 349**	**27 850**	**28 253**	**28 564**	**28 789**
Taxes without debt			**-1 504**	**-3 397**	**11 074**	**13 832**	**16 731**	**19 480**	**22 086**	**24 558**	**26 905**	**29 134**	**32 557**	**36 377**	**38 506**	**40 277**	**41 962**	**43 565**	**45 091**	**46 546**	**47 933**	**49 256**

Item	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
2.1 Service cost	**2039**	**2040**	**2041**	**2042**	**2043**	**2044**	**2045**	**2046**	**2047**	**2048**	**2049**	**2050**	**2051**	**2052**	**2053**	**2054**	**2055**	**2056**	**2057**	**2058**
Operating costs	11 595	11 595	11 595	11 595	11 595	11 595	11 595	11 595	11 595	11 595	11 595	11 595	11 595	11 595	11 595	11 595	11 595	11 595	11 595	11 595
Tax on public services	20 313	19 299	18 405	17 572	16 742	15 912	15 081	14 251	13 421	12 590	11 760	10 930	10 099	9 269	8 439	7 608	6 778	5 948	5 117	4 287
Royalties	2 059	2 059	2 059	2 059	2 059	2 059	2 059	2 059	2 059	2 059	2 059	2 059	2 059	2 059	2 059	2 059	2 059	2 059	2 059	2 059
Fixed assets depreciation	82 105	67 607	59 561	55 534	55 355	55 355	55 355	55 355	55 355	55 355	55 355	55 355	55 355	55 355	55 355	55 355	55 355	55 355	55 355	55 355
Income tax	28 932	23 871	21 220	20 034	20 200	20 373	20 489	20 553	20 567	20 534	20 458	20 340	20 184	19 991	19 764	19 505	19 216	18 898	18 554	18 184
Return	76 033	71 968	68 515	65 391	62 380	59 374	56 368	53 363	50 357	47 351	44 345	41 340	38 334	35 328	32 322	29 316	26 311	23 305	20 299	17 293
Total - Service cost	**221 037**	**196 399**	**181 356**	**172 184**	**168 331**	**164 668**	**160 948**	**157 176**	**153 354**	**149 485**	**145 572**	**141 619**	**137 626**	**133 597**	**129 534**	**125 439**	**121 314**	**117 160**	**112 979**	**108 774**
2.2 Rate base	**2039**	**2040**	**2041**	**2042**	**2043**	**2044**	**2045**	**2046**	**2047**	**2048**	**2049**	**2050**	**2051**	**2052**	**2053**	**2054**	**2055**	**2056**	**2057**	**2058**
Decrease in regulatory fairness	37 768	34 434	29 249	26 472	25 504	25 463	25 463	25 463	25 463	25 463	25 463	25 463	25 463	25 463	25 463	25 463	25 463	25 463	25 463	25 463
Repayment of regulatory debt	44 337	40 422	34 335	31 076	29 940	29 892	29 892	29 892	29 892	29 892	29 892	29 892	29 892	29 892	29 892	29 892	29 892	29 892	29 892	29 892
Equity	644 108	609 674	580 425	553 954	528 449	502 986	477 523	452 059	426 596	401 133	375 669	350 206	324 743	299 279	273 816	248 353	222 890	197 426	171 963	146 500
Debt	756 126	715 704	681 369	650 293	620 353	590 462	560 570	530 678	500 787	470 895	441 003	411 111	381 220	351 328	321 436	291 545	261 653	231 761	201 870	171 978
Total - Average base rate	**1 400 234**	**1 325 378**	**1 261 794**	**1 204 247**	**1 148 803**	**1 093 448**	**1 038 093**	**982 738**	**927 383**	**872 028**	**816 673**	**761 318**	**705 963**	**650 608**	**595 253**	**539 898**	**484 543**	**429 188**	**373 833**	**318 478**
2.3 Booked and capital cost allowance depreciation	**2039**	**2040**	**2041**	**2042**	**2043**	**2044**	**2045**	**2046**	**2047**	**2048**	**2049**	**2050**	**2051**	**2052**	**2053**	**2054**	**2055**	**2056**	**2057**	**2058**
Breakdown of UMQ - Pipes	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*
Breakdown of UMQ - Connection	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*
Breakdown of overheads - Pipes	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*
Breakdown of overheads - Connection	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*	*0,0%*
Breakdown of contributions/subsidies - Pipes	*81,6%*	*81,6%*	*81,6%*	*81,6%*	*81,6%*	*81,6%*	*81,6%*	*81,6%*	*81,6%*	*81,6%*	*81,6%*	*81,6%*	*81,6%*	*81,6%*	*81,6%*	*81,6%*	*81,6%*	*81,6%*	*81,6%*	*81,6%*
Breakdown of contributions/subsidies - Connections	*18,4%*	*18,4%*	*18,4%*	*18,4%*	*18,4%*	*18,4%*	*18,4%*	*18,4%*	*18,4%*	*18,4%*	*18,4%*	*18,4%*	*18,4%*	*18,4%*	*18,4%*	*18,4%*	*18,4%*	*18,4%*	*18,4%*	*18,4%*
Pipe fees - Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Connection fees - Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-depreciable asset (land)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CRP- 10 ans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Amort. - Frais de conduites - Total	-55 355	-55 355	-55 355	-55 355	-55 355	-55 355	-55 355	-55 355	-55 355	-55 355	-55 355	-55 355	-55 355	-55 355	-55 355	-55 355	-55 355	-55 355	-55 355	-55 355
Amort. - Connection fees - Total	-26 750	-12 252	-4 206	-179	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deprec. - CRP 10 ans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	-82 105	**-67 607**	**-59 561**	**-55 534**	**-55 355**	**-55 355**	**-55 355**	**-55 355**	**-55 355**	**-55 355**	**-55 355**	**-55 355**	**-55 355**	**-55 355**	**-55 355**	**-55 355**	**-55 355**	**-55 355**	**-55 355**	**-55 355**
Booked net fixed assets	**1 359 182**	**1 291 575**	**1 232 014**	**1 176 480**	**1 121 125**	**1 065 770**	**1 010 415**	**955 060**	**899 705**	**844 350**	**788 995**	**733 640**	**678 285**	**622 930**	**567 575**	**512 220**	**456 865**	**401 510**	**346 155**	**290 800**
Final net fixed assets for calculating the TSP	**1 354 182**	**1 286 575**	**1 227 014**	**1 171 480**	**1 116 125**	**1 060 770**	**1 005 415**	**950 060**	**894 705**	**839 350**	**783 995**	**728 640**	**673 285**	**617 930**	**562 575**	**507 220**	**451 865**	**396 510**	**341 155**	**285 800**
FNACC - Pipe fees - Total	703 508	661 297	621 619	584 322	549 263	516 307	485 329	456 209	428 836	403 106	378 920	356 185	334 814	314 725	295 841	278 091	261 405	245 721	230 978	217 119
FNACC - Connection fees - Total	164 342	154 482	145 213	136 500	128 310	120 612	113 375	106 572	100 178	94 167	88 517	83 206	78 214	73 521	69 110	64 963	61 065	57 402	53 957	50 720
	867 850	**815 779**	**766 832**	**720 822**	**677 573**	**636 919**	**598 704**	**562 781**	**529 014**	**497 274**	**467 437**	**439 391**	**413 027**	**388 246**	**364 951**	**343 054**	**322 471**	**303 123**	**284 935**	**267 839**
Amort. fiscal - Frais de conduites - Total	-44 905	-42 210	-39 678	-37 297	-35 059	-32 956	-30 978	-29 120	-27 373	-25 730	-24 186	-22 735	-21 371	-20 089	-18 883	-17 750	-16 685	-15 684	-14 743	-13 859
Amort. fiscal - Frais de branchements - Total	-10 490	-9 861	-9 269	-8 713	-8 190	-7 699	-7 237	-6 802	-6 394	-6 011	-5 650	-5 311	-4 992	-4 693	-4 411	-4 147	-3 898	-3 664	-3 444	-3 237
CCA - CRP 10 years	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	-55 395	**-52 071**	**-48 947**	**-46 010**	**-43 249**	**-40 654**	**-38 215**	**-35 922**	**-33 767**	**-31 741**	**-29 836**	**-28 046**	**-26 363**	**-24 782**	**-23 295**	**-21 897**	**-20 583**	**-19 348**	**-18 187**	**-17 096**
2.4 Income tax	**2039**	**2040**	**2041**	**2042**	**2043**	**2044**	**2045**	**2046**	**2047**	**2048**	**2049**	**2050**	**2051**	**2052**	**2053**	**2054**	**2055**	**2056**	**2057**	**2058**
Net booked unrealized gain	53 534	50 673	48 242	46 041	43 922	41 805	39 689	37 573	35 456	33 340	31 223	29 107	26 991	24 874	22 758	20 642	18 525	16 409	14 293	12 176
Booked depreciation	-82 105	-67 607	-59 561	-55 534	-55 355	-55 355	-55 355	-55 355	-55 355	-55 355	-55 355	-55 355	-55 355	-55 355	-55 355	-55 355	-55 355	-55 355	-55 355	-55 355
Capital cost allowance	-55 395	-52 071	-48 947	-46 010	-43 249	-40 654	-38 215	-35 922	-33 767	-31 741	-29 836	-28 046	-26 363	-24 782	-23 295	-21 897	-20 583	-19 348	-18 187	-17 096
Tax rate	26.50%	26.50%	26.50%	26.50%	26.50%	26.50%	26.50%	26.50%	26.50%	26.50%	26.50%	26.50%	26.50%	26.50%	26.50%	26.50%	26.50%	26.50%	26.50%	26.50%
1 - tax rate	73.50%	73.50%	73.50%	73.50%	73.50%	73.50%	73.50%	73.50%	73.50%	73.50%	73.50%	73.50%	73.50%	73.50%	73.50%	73.50%	73.50%	73.50%	73.50%	73.50%
Rates (gross-up)	**28 932**	**23 871**	**21 220**	**20 034**	**20 200**	**20 373**	**20 489**	**20 553**	**20 567**	**20 534**	**20 458**	**20 340**	**20 184**	**19 991**	**19 764**	**19 505**	**19 216**	**18 898**	**18 554**	**18 184**
Taxes without debt	**50 519**	**51 669**	**52 733**	**53 732**	**54 684**	**55 592**	**56 458**	**57 286**	**58 077**	**58 834**	**59 559**	**60 253**	**60 919**	**61 558**	**62 172**	**62 763**	**63 331**	**63 878**	**64 406**	**64 915**

Pro forma financial statements

2,5 IRR - PI - Rate contribution - Break-even point rate indicator		2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Investment		-2 825 000	-212 000	-151 000	-10 000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Revenue			136 000	225 000	280 000	280 000	280 000	280 000	280 000	280 000	280 000	280 000	280 000	280 000	280 000	280 000	280 000	280 000	280 000	280 000	280 000	280 000
OPEX, property taxes and royalties			-52 028	-56 773	-59 125	-56 209	-54 782	-53 356	-51 929	-50 502	-49 076	-47 649	-46 298	-45 051	-43 820	-42 588	-41 356	-40 125	-38 893	-37 662	-36 430	-35 198
Tax without debt	IRR		1 504	3 397	-11 074	-13 832	-16 731	-19 480	-22 086	-24 558	-26 905	-29 134	-32 557	-36 377	-38 506	-40 277	-41 962	-43 565	-45 091	-46 546	-47 933	-49 256
Project cash flow for calculating the IRR	**5,29%**	-2 825 000	-126 523	20 624	199 802	209 960	208 487	207 165	205 985	204 939	204 019	203 217	201 146	198 571	197 675	197 135	196 682	196 310	196 015	195 793	195 637	195 546
Profitability index	Discount rate																					
A - Flow of investments	5.01% / (3 172 457 $)	-2 825 000	-212 000	-151 000	-10 000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B - Flow of operations	5.01% / 3 298 434 $		85 477	171 624	209 802	209 960	208 487	207 165	205 985	204 939	204 019	203 217	201 146	198 571	197 675	197 135	196 682	196 310	196 015	195 793	195 637	195 546
PI = -(B/A)	**1,04**	-2 825 000	-126 523	20 624	199 802	209 960	208 487	207 165	205 985	204 939	204 019	203 217	201 146	198 571	197 675	197 135	196 682	196 310	196 015	195 793	195 637	195 546
Break-even point rate							5 years					10 years					15 years					20 years
Rate contribution	Discount rate		179 049	91 228	46 948	40 468	35 997	31 320	26 450	21 397	16 174	10 790	501	-11 418	-17 182	-22 038	-27 011	-32 096	-37 285	-42 572	-47 951	-53 416
Discounted rate contribution	5.43%	Do not erase	169 828	82 073	40 061	32 753	27 634	22 805	18 267	14 017	10 050	6 359	280	-6 053	-8 640	-10 512	-12 220	-13 773	-15 175	-16 435	-17 558	-18 552
Cumulative discounted rate contribution		-1	**169 828**	**251 901**	**291 962**	**324 715**	**352 348**	**375 154**	**393 421**	**407 438**	**417 487**	**423 846**	**424 126**	**418 073**	**409 432**	**398 921**	**386 700**	**372 927**	**357 752**	**341 317**	**323 759**	**305 207**
Rate break even point (RBEP) indicator	**31,18 ans**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

2,5 IRR - PI - Rate contribution - Break-even point rate indicator	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058
	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Investment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Revenue	280 000	280 000	280 000	280 000	280 000	280 000	280 000	280 000	280 000	280 000	280 000	280 000	280 000	280 000	280 000	280 000	280 000	280 000	280 000	280 000
OPEX, property taxes and royalties	-33 967	-32 953	-32 059	-31 226	-30 396	-29 566	-28 735	-27 905	-27 075	-26 244	-25 414	-24 584	-23 753	-22 923	-22 093	-21 262	-20 432	-19 602	-18 772	-17 941
Tax without debt	-50 519	-51 669	-52 733	-53 732	-54 684	-55 592	-56 458	-57 286	-58 077	-58 834	-59 559	-60 253	-60 919	-61 558	-62 172	-62 763	-63 331	-63 878	-64 406	-64 915
Project cash flow for calculating the IRR	195 514	195 379	195 207	195 041	194 920	194 843	194 806	194 809	194 848	194 922	195 027	195 163	195 328	195 519	195 735	195 975	196 237	196 520	196 823	197 144
A - Flow of investments	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B - Flow of operations	195 514	195 379	195 207	195 041	194 920	194 843	194 806	194 809	194 848	194 922	195 027	195 163	195 328	195 519	195 735	195 975	196 237	196 520	196 823	197 144
PI = -(B/A)	195 514	195 379	195 207	195 041	194 920	194 843	194 806	194 809	194 848	194 922	195 027	195 163	195 328	195 519	195 735	195 975	196 237	196 520	196 823	197 144
Break-even point rate					25 years					30 years					35 years					40 years
Rate contribution	-58 963	-83 601	-98 644	-107 816	-111 669	-115 332	-119 052	-122 824	-126 646	-130 515	-134 428	-138 381	-142 374	-146 403	-150 466	-154 561	-158 686	-162 840	-167 021	-171 226
Discounted rate contribution	-19 424	-26 122	-29 234	-30 307	-29 773	-29 166	-28 556	-27 944	-27 329	-26 714	-26 097	-25 481	-24 866	-24 253	-23 642	-23 035	-22 432	-21 833	-21 241	-20 654
Cumulative discounted rate contribution	**285 783**	**259 662**	**230 427**	**200 121**	**170 347**	**141 181**	**112 625**	**84 681**	**57 351**	**30 638**	**4 540**	**-20 941**	**-45 807**	**-70 060**	**-93 703**	**-116 738**	**-139 170**	**-161 003**	**-182 244**	**-202 897**
Rate break even point (RBEP) indicator	-	-	-	-	-	-	-	-	-	-	-	31.18								

Original : 2018.03.08

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ÉNERGIR, L.P.
REQUIRED REVENUE CALCULATION
BUDGET

REQUIRED REVENUE
2017-2018 Parameters
SRR-VERSION 18.1

Extension Project - New Method

Project type	Extension - Estimation
Customer type	COMMERCIAL
Region	Québec City
Municipality	St-Elzéar
Length in linear metres	10 000

Representative	
Adviser	
WBS	19-000012
Prospective capital cost D-2017-094	5,43%
Prospective capital cost after tax	5,01%

	Total	0	1	2	3	4	5
Number of customers			10	20	30	30	30
Volume in m^3			800 000	1 500 000	2 000 000	2 000 000	2 000 000
Pipe fees - Base	2 500 000	2 500 000	0	0	0	0	0
Pipe fees - Contractor expenses		0	0	0	0	0	0
Pipe fees	2 500 000	2 500 000	0	0	0	0	0
Connection fees - Base	525 000	300 000	150 000	75 000	0	0	0
Connection fees - Contractor expenses		0	0	0	0	0	0
Connection fees - Meter(s) cost	38 000	20 000	12 000	6 000	0	0	0
Connection fees	563 000	320 000	162 000	81 000	0	0	0
UMQ fees		0	0	0	0	0	0
Other project costs		0	0	0	0	0	0
Non-depreciable asset (land)	5 000	5 000	0	0	0	0	0
Overheads (0,00%)		0	0	0	0	0	0
CRP- 10 years	130 000		50 000	70 000	10 000	0	0
PEDA - CRP (10 years)			0	0	0	0	0
Contrib. Network connection/Time/Location		0	0	0	0	0	0
PEDA - Assets		0	0	0	0	0	0
External subsidies		0	0	0	0	0	0
Customer contributions		0	0	0	0	0	0
Total investment	3 198 000	2 825 000	212 000	151 000	10 000	0	0
Operating cost			9 288	11 186	13 084	11 595	11 595
Booked depreciation			75 559	90 257	95 105	95 105	95 105
Tax on public services			41 917	44 043	43 981	42 555	41 128
Royalties			824	1 544	2 059	2 059	2 059
Income tax			34 236	8 211	10 820	12 252	14 372
Return			153 226	160 987	161 898	156 901	151 737
Revenue requirement			315 049	316 228	326 948	320 468	315 997
Revenue			0	0	0	0	0
Distribution Rate (¢/m³)			17,0000	15,0000	14,0000	14,0000	14,0000
Green fund rate (¢/m³)			0,0000	0,0000	0,0000	0,0000	0,0000
Distribution revenues (¢/m³)			17,0000	15,0000	14,0000	14,0000	14,0000
Distribution revenue ($)			136 000	225 000	280 000	280 000	280 000
Annual rate contribution			179 049	91 228	46 948	40 468	35 997

	6	7	8	9	10
Annual rate contribution	31 320	26 450	21 397	16 174	10 790

Rate contribution (3 years)	291 962	Rate contribution (15 years)	386 700
Rate contribution (5 years)	352 348	Rate contribution (20 years)	305 207
Rate contribution (10 years)	423 846	Rate contribution (40 years)	(202 897)
Break-even point rate (years)	31,18		
Internal rate of return (IRR 40 years)	5,29%		
Profitability index	1,04		

SALES

Representative Date ____/____/____	Sales Director Date ____/____/____	Sales executive Date ____/____/____
Vice-President Marketing Date ____/____/____	President Date ____/____/____	

IMPLEMENTATION CONDITIONS

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ÉNERGIR, L.P.
REQUIRED REVENUE CALCULATION
BUDGET

REQUIRED REVENUE
2017-2018 Parameters
SRR-VERSION 18.1

Extension Project - New Method

Project type	Extension - Estimation
Customer type	COMMERCIAL
Region	Québec
Municipality	St-Elzéar
Length in linear metres	10 000

Representative	
Adviser	
WBS	19-000012
Prospective capital cost D-2017-094	5,43%
Prospective capital cost after tax	5,01%

	5	6	7	8	9	10
Number of customers	30	30	30	30	30	30
Volume en m3	2 000 000	2 000 000	2 000 000	2 000 000	2 000 000	2 000 000
Pipe fees - Base	0	0	0	0	0	0
Pipe fees - Contractor expenses	0	0	0	0	0	0
Pipe fees	0	0	0	0	0	0
Connection fees - Base	0	0	0	0	0	0
Connection fees - Contractor expenses	0	0	0	0	0	0
Connection fees - Meter(s) cost	0	0	0	0	0	0
Connection fees	0	0	0	0	0	0
UMQ fees	0	0	0	0	0	0
Other project costs	0	0	0	0	0	0
Non-depreciable asset (land)	0	0	0	0	0	0
Overheads (0,00%)	0	0	0	0	0	0
CRP- 10 years	0	0	0	0	0	0
PEDA - CRP (10 years)	0	0	0	0	0	0
Contrib. Network connection/Time/Location	0	0	0	0	0	0
PEDA - Assets	0	0	0	0	0	0
External subsidies	0	0	0	0	0	0
Customer contributions	0	0	0	0	0	0
Total investment	0	0	0	0	0	0
Operating cost	11 595	11 595	11 595	11 595	11 595	11 595
Booked depreciation	95 105	95 105	95 105	95 105	95 105	95 105
Tax on public services	41 128	39 701	38 275	36 848	35 422	33 995
Royalties	2 059	2 059	2 059	2 059	2 059	2 059
Income tax	14 372	16 286	18 007	19 545	20 913	22 120
Return	151 737	146 573	141 409	136 244	131 080	125 916
Revenue requirement	315 997	311 320	306 450	301 397	296 174	290 790
Revenue	0	0	0	0	0	0
Distribution Rate (¢/m³)	14	14,0000	14,0000	14,0000	14,0000	14,0000
Green fund rate (¢/m³)	0	0,0000	0,0000	0,0000	0,0000	0,0000
Distribution revenues (¢/m³)	14	14,0000	14,0000	14,0000	14,0000	14,0000
Distribution revenue ($)	280 000	280 000	280 000	280 000	280 000	280 000
Annual rate contribution	35 997	31 320	26 450	21 397	16 174	10 790

	11	12	13	14	15
Annual rate contribution	501	(11 418)	(17 182)	(22 038)	(27 011)

Rate contribution (3 years)	291 962	Rate contribution (15 years)	386 700
Rate contribution (5 years)	352 348	Rate contribution (20 years)	305 207
Rate contribution (10 years)	423 846	Rate contribution (40 years)	(202 897)
Break-even point rate (years)	31,18		
Internal rate of return (IRR 40 years)	5,29%		
Profitability index	1,04		

SALES

Representative Date ____/____/____	Sales Director Date ____/____/____	Sales executive Date ____/____/____
Vice President Marketing Date ____/____/____	President Date ____/____/____	

IMPLEMENTATION CONDITIONS

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ÉNERGIR, L.P.
REQUIRED REVENUE CALCULATION
BUDGET

REQUIRED REVENUE
2017-2018 Parameters
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Extension Project - New Method

Project type	Extension - Estimation
Customer type	COMMERCIAL
Region	Québec
Municipality	St-Elzéar
Number of potential customers	
Length in linear metres	10 000

Representative	
Adviser	
WBS	19-000012
Prospective capital cost D-2017-094	5,43%
Prospective capital cost after tax	5,01%

	10	11	12	13	14	15
Number of customers	30	30	30	30	30	30
Volume in m3	2 000 000	2 000 000	2 000 000	2 000 000	2 000 000	2 000 000
Pipe fees - Base	0	0	0	0	0	0
Pipe fees - Contractor expenses	0	0	0	0	0	0
Pipe fees	0	0	0	0	0	0
Connection fees - Base	0	0	0	0	0	0
Connection fees - Contractor expenses	0	0	0	0	0	0
Connection fees - Meter(s) cost	0	0	0	0	0	0
Connection fees	0	0	0	0	0	0
UMQ fees	0	0	0	0	0	0
Other project costs	0	0	0	0	0	0
Non-depreciable asset (land)	0	0	0	0	0	0
Overheads (0,00%)	0	0	0	0	0	0
CRP- 10 years	0	0	0	0	0	0
PEDA - CRP (10 years)	0	0	0	0	0	0
Contrib. Network connection/Time/Location	0	0	0	0	0	0
PEDA - Assets	0	0	0	0	0	0
External subsidies	0	0	0	0	0	0
Customer contributions	0	0	0	0	0	0
Total investment	0	0	0	0	0	0
Operating cost	11 595	11 595	11 595	11 595	11 595	11 595
Booked depreciation	95 105	90 105	83 105	82 105	82 105	82 105
Tax on public services	33 995	32 644	31 397	30 165	28 934	27 702
Royalties	2 059	2 059	2 059	2 059	2 059	2 059
Income tax	22 120	23 210	24 241	25 194	26 028	26 744
Return	125 916	120 887	116 185	111 699	107 241	102 783
Revenue requirement	290 790	280 501	268 582	262 818	257 962	252 989
Revenue	0	0	0	0	0	0
Distribution Rate (¢/m³)	14	14,0000	14,0000	14,0000	14,0000	14,0000
Green fund rate (¢/m³)	0	0,0000	0,0000	0,0000	0,0000	0,0000
Distribution revenues (¢/m³)	14	14,0000	14,0000	14,0000	14,0000	14,0000
Distribution revenue ($)	280 000	280 000	280 000	280 000	280 000	280 000
Annual rate contribution	10 790	501	(11 418)	(17 182)	(22 038)	(27 011)

	16	17	18	19	20
Annual rate contribution	(32 096)	(37 285)	(42 572)	(47 951)	(53 416)

Rate contribution (3 years)	291 962	Rate contribution (15 years)	386 700
Rate contribution (5 years)	352 348	Rate contribution (20 years)	305 207
Rate contribution (10 years)	423 846	Rate contribution (40 years)	(202 897)
Break-even point rate (years)	31,18		
Internal rate of return (IRR 40 years)	5,29%		
Profitability index	1,04		

SALES

Representative Date ____/____/____	Sales Director Date ____/____/____	Sales executive Date ____/____/____
Vice President Marketing Date ____/____/____	President Date ____/____/____	

IMPLEMENTATION CONDITIONS

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ÉNERGIR, L.P.
REQUIRED REVENUE CALCULATION
BUDGET

REQUIRED REVENUE
2017-2018 Parameters
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Extension Project - New Method

Project type	Extension - Estimation	Representative	
Customer type	COMMERCIAL	Adviser	
Region	Québec	WBS	19-000012
Municipality	St-Elzéar		
Number of potential customers		Prospective capital cost D-2017-094	5,43%
Length in linear metres	10 000	Prospective capital cost after tax	5,01%

	15	16	17	18	19	20
Number of customers	30	30	30	30	30	30
Volume in m3	2 000 000	2 000 000	2 000 000	2 000 000	2 000 000	2 000 000
Pipe fees - Base	0	0	0	0	0	0
Pipe fees - Contractor expenses	0	0	0	0	0	0
Pipe fees	0	0	0	0	0	0
Connection fees - Base	0	0	0	0	0	0
Connection fees - Contractor expenses	0	0	0	0	0	0
Connection fees - Meter(s) cost	0	0	0	0	0	0
Connection fees	0	0	0	0	0	0
UMQ fees	0	0	0	0	0	0
Other project costs	0	0	0	0	0	0
Non-depreciable asset (land)	0	0	0	0	0	0
Overheads (0,00%)	0	0	0	0	0	0
CRP- 10 years	0	0	0	0	0	0
PEDA - CRP (10 years)	0	0	0	0	0	0
Contrib. Network connection/Time/Location	0	0	0	0	0	0
PEDA - Assets	0	0	0	0	0	0
External subsidies	0	0	0	0	0	0
Customer contributions	0	0	0	0	0	0
Total investment	0	0	0	0	0	0
Operating cost	11 595	11 595	11 595	11 595	11 595	11 595
Booked depreciation	82 105	82 105	82 105	82 105	82 105	82 105
Tax on public services	27 702	26 471	25 239	24 007	22 776	21 544
Royalties	2 059	2 059	2 059	2 059	2 059	2 059
Income tax	26 744	27 349	27 850	28 253	28 564	28 789
Return	102 783	98 324	93 866	89 408	84 949	80 491
Revenue requirement	252 989	247 904	242 715	237 428	232 049	226 584
Revenue	0	0	0	0	0	0
Distribution Rate (¢/m³)	14	14,0000	14,0000	14,0000	14,0000	14,0000
Green fund rate (¢/m³)	0	0,0000	0,0000	0,0000	0,0000	0,0000
Distribution revenues (¢/m³)	14	14,0000	14,0000	14,0000	14,0000	14,0000
Distribution revenue ($)	280 000	280 000	280 000	280 000	280 000	280 000
Annual rate contribution	(27 011)	(32 096)	(37 285)	(42 572)	(47 951)	(53 416)

	21	22	23	24	25
Annual rate contribution	(58 963)	(83 601)	(98 644)	(107 816)	(111 669)

Rate contribution (3 years)	291 962	Rate contribution (15 years)	386 700
Rate contribution (5 years)	352 348	Rate contribution (20 years)	305 207
Rate contribution (10 years)	423 846	Rate contribution (40 years)	(202 897)
Break-even point rate (years)	31,18		
Internal rate of return (IRR 40 years)	5,29%		
Profitability index	1,04		

SALES

Representative Date ____/____/____	Sales Director Date ____/____/____	Sales executive Date ____/____/____
Vice President Marketing Date ____/____/____	President Date ____/____/____	

IMPLEMENTATION CONDITIONS

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ÉNERGIR, L.P.
REQUIRED REVENUE CALCULATION
BUDGET

REQUIRED REVENUE
2017-2018 Parameters
SRR-VERSION 18.1

Extension Project - New Method

Project type	Extension - Estimation	Representative	
Customer type	COMMERCIAL	Adviser	
Region	Québec	WBS	19-000012
Municipality	St-Elzéar		
Number of potential customers		Prospective capital cost D-2017-094	5,43%
Length in linear metres	10 000	Prospective capital cost after tax	5,01%

	20	21	22	23	24	25
Number of customers	30	30	30	30	30	30
Volume in m3	2 000 000	2 000 000	2 000 000	2 000 000	2 000 000	2 000 000
Pipe fees - Base	0	0	0	0	0	0
Pipe fees - Contractor expenses	0	0	0	0	0	0
Pipe fees	0	0	0	0	0	0
Connection fees - Base	0	0	0	0	0	0
Connection fees - Contractor expenses	0	0	0	0	0	0
Connection fees - Meter(s) cost	0	0	0	0	0	0
Connection fees	0	0	0	0	0	0
UMQ fees	0	0	0	0	0	0
Other project costs	0	0	0	0	0	0
Non-depreciable asset (land)	0	0	0	0	0	0
Overheads (0,00%)	0	0	0	0	0	0
CRP- 10 years	0	0	0	0	0	0
PEDA - CRP (10 years)	0	0	0	0	0	0
Contrib. Network connection/Time/Location	0	0	0	0	0	0
PEDA - Assets	0	0	0	0	0	0
External subsidies	0	0	0	0	0	0
Customer contributions	0	0	0	0	0	0
Total investment	0	0	0	0	0	0
Operating cost	11 595	11 595	11 595	11 595	11 595	11 595
Booked depreciation	82 105	82 105	67 607	59 561	55 534	55 355
Tax on public services	21 544	20 313	19 299	18 405	17 572	16 742
Royalties	2 059	2 059	2 059	2 059	2 059	2 059
Income tax	28 789	28 932	23 871	21 220	20 034	20 200
Return	80 491	76 033	71 968	68 515	65 391	62 380
Revenue requirement	226 584	221 037	196 399	181 356	172 184	168 331
Revenue	0	0	0	0	0	0
Distribution Rate (¢/m³)	14	14,0000	14,0000	14,0000	14,0000	14,0000
Green fund rate (¢/m³)	0	0,0000	0,0000	0,0000	0,0000	0,0000
Distribution revenues (¢/m³)	14	14,0000	14,0000	14,0000	14,0000	14,0000
Distribution revenue ($)	280 000	280 000	280 000	280 000	280 000	280 000
Annual rate contribution	(53 416)	(58 963)	(83 601)	(98 644)	(107 816)	(111 669)

	26	27	28	29	30
Annual rate contribution	(115 332)	(119 052)	(122 824)	(126 646)	(130 515)

Rate contribution (3 years)	291 962	Rate contribution (15 years)	386 700
Rate contribution (5 years)	352 348	Rate contribution (20 years)	305 207
Rate contribution (10 years)	423 846	Rate contribution (40 years)	(202 897)
Break-even point rate (years)	31,18		
Internal rate of return (IRR 40 years)	5,29%		
Profitability index	1,04		

SALES

Representative Date ____/____/____	Sales Director Date ____/____/____	Sales executive Date ____/____/____
Vice President Marketing Date ____/____/____	President Date ____/____/____	

IMPLEMENTATION CONDITIONS

énergir

ÉNERGIR, L.P.
REQUIRED REVENUE CALCULATION
BUDGET

REQUIRED REVENUE
2017-2018 Parameters
SRR-VERSION 18.1

Extension Project - New Method

Project type	Extension - Estimation	Representative	
Customer type	COMMERCIAL	Adviser	
Region	Québec	WBS	19-000012
Municipality	St-Elzéar		
Number of potential customers		Prospective capital cost D-2017-094	5,43%
Length in linear metres	10 000	Prospective capital cost after tax	5,01%

	25	26	27	28	29	30
Number of customers	30	30	30	30	30	30
Volume in m3	2 000 000	2 000 000	2 000 000	2 000 000	2 000 000	2 000 000
Pipe fees - Base	0	0	0	0	0	0
Pipe fees - Contractor expenses	0	0	0	0	0	0
Pipe fees	0	0	0	0	0	0
Connection fees - Base	0	0	0	0	0	0
Connection fees - Contractor expenses	0	0	0	0	0	0
Connection fees - Meter(s) cost	0	0	0	0	0	0
Connection fees	0	0	0	0	0	0
UMQ fees	0	0	0	0	0	0
Other project costs	0	0	0	0	0	0
Non-depreciable asset (land)	0	0	0	0	0	0
Overheads (0,00%)	0	0	0	0	0	0
CRP- 10 years	0	0	0	0	0	0
PEDA - CRP (10 years)	0	0	0	0	0	0
Contrib. Network connection/Time/Location	0	0	0	0	0	0
PEDA - Assets	0	0	0	0	0	0
External subsidies	0	0	0	0	0	0
Customer contributions	0	0	0	0	0	0
Total investment	0	0	0	0	0	0
Operating cost	11 595	11 595	11 595	11 595	11 595	11 595
Booked depreciation	55 355	55 355	55 355	55 355	55 355	55 355
Tax on public services	16 742	15 912	15 081	14 251	13 421	12 590
Royalties	2 059	2 059	2 059	2 059	2 059	2 059
Income tax	20 200	20 373	20 489	20 553	20 567	20 534
Return	62 380	59 374	56 368	53 363	50 357	47 351
Revenue requirement	168 331	164 668	160 948	157 176	153 354	149 485
Revenue	0	0	0	0	0	0
Distribution Rate (¢/m³)	14	14,0000	14,0000	14,0000	14,0000	14,0000
Green fund rate (¢/m³)	0	0,0000	0,0000	0,0000	0,0000	0,0000
Distribution revenues (¢/m³)	14	14,0000	14,0000	14,0000	14,0000	14,0000
Distribution revenue ($)	280 000	280 000	280 000	280 000	280 000	280 000
Annual rate contribution	(111 669)	(115 332)	(119 052)	(122 824)	(126 646)	(130 515)

	31	32	33	34	35
Annual rate contribution	(134 428)	(138 381)	(142 374)	(146 403)	(150 466)

Rate contribution (3 years)	291 962	Rate contribution (15 years)	386 700
Rate contribution (5 years)	352 348	Rate contribution (20 years)	305 207
Rate contribution (10 years)	423 846	Rate contribution (40 years)	(202 897)
Break-even point rate (years)	31,18		
Internal rate of return (IRR 40 years)	5,29%		

SALES

Representative Date ____/____/____	Sales Director Date ____/____/____	Sales executive Date ____/____/____
Vice President Marketing Date ____/____/____	President Date ____/____/____	

IMPLEMENTATION CONDITIONS

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ÉNERGIR, L.P.
REQUIRED REVENUE CALCULATION
BUDGET

REQUIRED REVENUE
2017-2018 Parameters
SRR-VERSION 18.1

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Municipality	St-Elzéar		
Number of potential customers		Prospective capital cost D-2017-094	5,43%
Length in linear metres	10 000	Prospective capital cost after tax	5,01%

	30	31	32	33	34	35
Number of customers	30	30	30	30	30	30
Volume in m3	2 000 000	2 000 000	2 000 000	2 000 000	2 000 000	2 000 000
Pipe fees - Base	0	0	0	0	0	0
Pipe fees - Contractor expenses	0	0	0	0	0	0
Pipe fees	0	0	0	0	0	0
Connection fees - Base	0	0	0	0	0	0
Connection fees - Contractor expenses	0	0	0	0	0	0
Connection fees - Meter(s) cost	0	0	0	0	0	0
Connection fees	0	0	0	0	0	0
UMQ fees	0	0	0	0	0	0
Other project costs	0	0	0	0	0	0
Non-depreciable asset (land)	0	0	0	0	0	0
Overheads (0,00%)	0	0	0	0	0	0
CRP- 10 years	0	0	0	0	0	0
PEDA - CRP (10 years)	0	0	0	0	0	0
Contrib. Network connection/Time/Location	0	0	0	0	0	0
PEDA - Assets	0	0	0	0	0	0
External subsidies	0	0	0	0	0	0
Customer contributions	0	0	0	0	0	0
Total investment	0	0	0	0	0	0
Operating cost	11 595	11 595	11 595	11 595	11 595	11 595
Booked depreciation	55 355	55 355	55 355	55 355	55 355	55 355
Tax on public services	12 590	11 760	10 930	10 099	9 269	8 439
Royalties	2 059	2 059	2 059	2 059	2 059	2 059
Income tax	20 534	20 458	20 340	20 184	19 991	19 764
Return	47 351	44 345	41 340	38 334	35 328	32 322
Revenue requirement	149 485	145 572	141 619	137 626	133 597	129 534
Revenue	0	0	0	0	0	0
Distribution Rate (¢/m³)	14	14,0000	14,0000	14,0000	14,0000	14,0000
Green fund rate (¢/m³)	0	0,0000	0,0000	0,0000	0,0000	0,0000
Distribution revenues (¢/m³)	14	14,0000	14,0000	14,0000	14,0000	14,0000
Distribution revenue ($)	280 000	280 000	280 000	280 000	280 000	280 000
Annual rate contribution	(130 515)	(134 428)	(138 381)	(142 374)	(146 403)	(150 466)

	36	37	38	39	40
Annual rate contribution	(154 561)	(158 686)	(162 840)	(167 021)	(171 226)

Rate contribution (3 years)	291 962	Rate contribution (15 years)	386 700
Rate contribution (5 years)	352 348	Rate contribution (20 years)	305 207
Rate contribution (10 years)	423 846	Rate contribution (40 years)	(202 897)
Break-even point rate (years)	31,18		
Internal rate of return (IRR 40 years)	5,29%		
Profitability index	1,04		

SALES

Representative Date ____/____/____	Sales Director Date ____/____/____	Sales executive Date ____/____/____
Vice President Marketing Date ____/____/____	President Date ____/____/____	

IMPLEMENTATION CONDITIONS

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ÉNERGIR, L.P.
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2017-2018 Parameters
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Length in linear metres	10 000	Prospective capital cost after tax	5,01%

	35	36	37	38	39	40
Number of customers	30	30	30	30	30	30
Volume in m3	2 000 000	2 000 000	2 000 000	2 000 000	2 000 000	2 000 000
Pipe fees - Base	0	0	0	0	0	0
Pipe fees - Contractor expenses	0	0	0	0	0	0
Pipe fees	0	0	0	0	0	0
Connection fees - Base	0	0	0	0	0	0
Connection fees - Contractor expenses	0	0	0	0	0	0
Connection fees - Meter(s) cost	0	0	0	0	0	0
Connection fees	0	0	0	0	0	0
UMQ fees	0	0	0	0	0	0
Other project costs	0	0	0	0	0	0
Non-depreciable asset (land)	0	0	0	0	0	0
Overheads (0,00%)	0	0	0	0	0	0
CRP- 10 years	0	0	0	0	0	0
PEDA - CRP (10 years)	0	0	0	0	0	0
Contrib. Network connection/Time/Location	0	0	0	0	0	0
PEDA - Assets	0	0	0	0	0	0
External subsidies	0	0	0	0	0	0
Customer contributions	0	0	0	0	0	0
Total investment	0	0	0	0	0	0
Operating cost	11 595	11 595	11 595	11 595	11 595	11 595
Booked depreciation	55 355	55 355	55 355	55 355	55 355	55 355
Tax on public services	8 439	7 608	6 778	5 948	5 117	4 287
Royalties	2 059	2 059	2 059	2 059	2 059	2 059
Income tax	19 764	19 505	19 216	18 898	18 554	18 184
Return	32 322	29 316	26 311	23 305	20 299	17 293
Revenue requirement	129 534	125 439	121 314	117 160	112 979	108 774
Revenue	0	0	0	0	0	0
Distribution Rate (¢/m³)	14	14,0000	14,0000	14,0000	14,0000	14,0000
Green fund rate (¢/m³)	0	0,0000	0,0000	0,0000	0,0000	0,0000
Distribution revenues (¢/m³)	14	14,0000	14,0000	14,0000	14,0000	14,0000
Distribution revenue ($)	280 000	280 000	280 000	280 000	280 000	280 000
Annual rate contribution	(150 466)	(154 561)	(158 686)	(162 840)	(167 021)	(171 226)

Annual rate contribution						

Rate contribution (3 years)	291 962	Rate contribution (15 years)	386 700
Rate contribution (5 years)	352 348	Rate contribution (20 years)	305 207
Rate contribution (10 years)	423 846	Rate contribution (40 years)	(202 897)
Break-even point rate (years)	31,18		
Internal rate of return (IRR 40 years)	5,29%		
Profitability index	1,04		

SALES

Representative Date ____/____/____	Sales Director Date ____/____/____	Sales executive Date ____/____/____
Vice President Marketing Date ____/____/____	President Date ____/____/____	

IMPLEMENTATION CONDITIONS