

ENERGIR

R-3867-2013, Phase 3B

**METHODOLOGY FOR EVALUATION OF
THE PROFITABILITY OF DEVELOPMENT
PROJECTS**

Presentation to the Régie de l'énergie

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*Request for marginal costs for long-term service delivery applied to the
profitability analysis, R-3867-2013*

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Presentation outline



- Background
- Method for measuring profitability
- Project acceptance criteria
- Supplementary evidence on the evolution of Major Industry customers

Background (1/2)



Since the initial filing as part of CT2017, Énergir's position has evolved.

- According to Énergir, the "New Method" presented to you today is:
 - Rigorous, taking all relevant costs into consideration
 - Perfectly in line with the economic and accounting principles underlying the investment project assessment
 - Aligned with the methods of other Canadian gas distributors, particularly those in Ontario

- The New Method presented by Énergir is based on the portfolio approach; the approach supported by both economic theory and the decisions of other regulators.
- OEB, Decision 188:

“The Board believes that utilities are in the best position to plan their distribution systems and, therefore, they should have flexibility in choosing the optimal system design for their distribution system expansions. The Board also believes that if the utilities are allowed to assess the financial viability of all potential customers as a group [using a portfolio approach] more marginal customers could be served as a result of assessing the cost of serving them together with more financially viable customers.”

The portfolio approach, which involves matching levels with the relevant costs, allows you to:

- 1. Maximize access to natural gas**
- 2. Maximize rate reductions for existing customers**

Method for measuring profitability (1/3)



- The New Method takes into account the same costs that are now considered.

Inputs	Historic Method	New Method
Period of analysis	The 40-year project analysis period represents the weighted average lifespan of the asset investments in the development plan (including meters). – D-90-60	
Revenue	Revenue from customers ready to sign a contract and potential customers are considered for the profitability calculation.	Only contractually incurred revenues are considered for the profitability calculation.
Costs of pipes, connections and meters	The direct costs of the pipe, connection and meter are included and amortized according to the appropriate depreciation. The financial return on the unamortized balance of the assets as well as the tax are also considered.	
Financial assistance	CRP and CASEP financial assistance is included in the profitability analysis.	
UMQ fees	Two percent of the direct costs of the pipe and connection is included in the profitability calculation.	
Marginal costs of long-term service delivery	These operating costs are considered on a project-by-project basis when assessing profitability. The marginal costs of long-term service delivery applied to the profitability analysis were addressed in phase 3-A of this file.	
Provincial tax on public services	These costs are considered on a project-by-project basis when assessing profitability.	
Annual duties payable to the Régie	These costs are considered on a project-by-project basis when assessing profitability.	
Annual duties payable to the Régie du bâtiment	These costs are considered on a project-by-project basis when assessing profitability.	
Corporate overheads	These costs are considered on a project-by-project basis when assessing profitability.	These costs are considered in the overall profitability of the development plan.
Contractor overheads	These costs are considered on a project-by-project basis when assessing profitability.	These costs are considered in the overall profitability of the development plan.
External contributions	The contribution reduces investments and is included in the profitability analysis.	
Reinforcement of distribution network	These costs are considered in the overall profitability of the development plan.	

Refinements that allow for a fairer evaluation of projects

Method for measuring profitability (2/3)



Direct incremental costs

- These costs are allocated to each specific customer as they are specifically incurred to service each customer on an individual basis (pipe, connection, meter, etc.).
- Status quo relative to historic method – Costs considered per project

Distribution network reinforcement costs

- These costs are allocated to the level of overall profitability since they are incurred to service new, existing and potential future customers (delivery station, compression, etc.).
- Status quo relative to historic method – Costs considered for the entire development plan

Indirect development costs

- These costs cannot be directly allocated to a new customer, but are shared for all new projects since they support the connection activities for new Energi customers (corporate overheads and fixed contractor overheads).
- Change relative to historic method – Costs now considered for the entire development plan

Method for measuring profitability (3/3)



- The refinements made to the handling of indirect costs at the portfolio level maximizes the rate reductions for all customers.

Example from B&V report (p. 33) with yearly indirect costs of \$100

Table 1 – Example of Allocating Indirect Costs to Individual Projects

PROJECT	REVENUE GENERATED	DIRECT INCREMENTAL COSTS	INDIRECT COSTS AS ALLOCATED	MARGIN
1	\$200	\$125	\$25	\$50
2	\$200	\$100	\$25	\$75
3	\$200	\$180	\$25	(\$5)
4	\$200	\$180	\$25	(\$5)

The yearly indirect costs are equal to \$100.

Table 2 – Example of Not Allocating Indirect Costs to Individual Projects

PROJECT	REVENUE GENERATED	DIRECT INCREMENTAL COSTS	INDIRECT COSTS AS ALLOCATED	MARGIN
1	\$200	\$125	\$0	\$75
2	\$200	\$100	\$0	\$100
3	\$200	\$180	\$0	\$20
4	\$200	\$180	\$0	\$20

The yearly indirect costs are equal to \$100.

The \$100 in fixed indirect costs are allocated per project

- Projects 3 and 4 considered non-profitable
- Revenues = \$400; Direct costs = \$225; Indirect costs = \$100
- Rate reductions = \$400 - \$225 - \$100 = \$75

The \$100 in fixed indirect costs are in the portfolio

- All projects are profitable
- Revenues = \$800; Direct costs = \$585; Indirect costs = \$100
- Rate reductions = \$800 - \$585 - \$100 = \$115

Allocating indirect costs denies existing customers \$40 in rate reductions.

Project acceptance criteria (1/4)



Énergir proposes to use the Profitability Index (PI) approach, which is the ratio of the present value of the project's transaction cash flows to the initial project investment.

- A widespread approach in Canada (Fortis BC, Union Gas Limited and Enbridge Gas Distribution).
- Approach equivalent to the current approach (PI of 1 corresponds to a project whose IRR is equivalent to the PCC).

For projects without densification potential (without expectation of profitability)

- PI must be greater than or equal to 1.

For projects with densification potential (with expectation of profitability)

- PI must be greater than or equal to 0.8, which corresponds to an IRR slightly lower than the PCC.
- The aim of accepting such projects is to conclude projects that will be able to generate rate reductions given future densification.

If a project (with or without densification potential) does not meet the required minimum PI, Énergir may request a contribution to increase the PI to the required minimum.

Project acceptance criteria (2/4)



Example of a network extension with contractually committed customers and identified potential

School that uses oil
interested in converting in the short term



Vacant land acquired by
a major company



Commercial building
contractually committed



New neighbourhood announced
by a developer consistently favourable to natural gas



Office tower
contractually committed

Project acceptance criteria (3/4)



Such exceptional cases are justified because they make it possible to take advantage of a window of opportunity.

- Road repaving: be a part of integrated work to minimize inconveniences and reduce costs
- Industrial park: low costs and development leverage

Industrial parks and road repaving are exceptional cases that justify distinct criteria.

- For each rate case, Énergir will establish a budget (currently estimated at approximately \$1.5 million) for industrial park and road repaving projects, even if the contracted revenues do not make it possible to reach a PI of 0.8.
- The budget will be established using an estimate of needs, which will be based specifically on the history and the prospective information available.

Establishing a budget for exceptional cases is an additional governance measure that favours the prioritization of the best projects.

Project acceptance criteria (4/4)



Profitability of the entire development

- As a minimum, the overall development plan must have a profitability index of greater than or equal to 1.1.
- The sum of sales investments and development projects within and outside the network, corporate overheads, fixed contractor overheads, distribution reinforcement costs, as well as investments for exceptional cases must at least make it possible to attain a PI of 1.1, thereby generating rate reductions.

Énergir proposes to improve its a posteriori profitability analysis that is filed in the annual report.

Énergir proposes to add the a posteriori profitability analysis six years later for each of the two distinct project categories.

- Development projects with a PI of less than 0.8 to 1
- Industrial park and road repaving projects

The use of an overall minimum PI of 1.1 rather than 1.0 mitigates the risk associated with the realization of projects' estimated profitability.

Conclusion



Little significant difference in the costs considered with the old method and that of projects over \$1.5 million.

1. Use of a PI-based approach that is used by Fortis BC, Union Gas Limited and Enbridge Gas Distribution.
2. Processing of corporate overheads and contractor overheads in the overall profitability of the development plan, since they are shared for all new projects and support the connection activities for new customers.
3. Only contractually committed revenues in the PI evaluation are considered.
 - If there is a potential for densification: $PI > 0.8$ = project authorized
 - Otherwise: $PI > 1$ = project authorized
 - Exceptional cases (industrial park and road repaving)
4. An overall development plan that must have a PI of 1.1 considering all costs.
5. Additional a posteriori follow-up.

New method that is more in line with other Canadian gas distributors, in addition to being supported by the economic and management accounting principles underlying investment decisions.

Evolution of Major Industry customers (1/3)



In its request for information No. 3 to OC and ROEE experts, the Régie asks questions about Sales Major Industries, stating:

- Taking into account the erosion factor observed in reference (i) and (ii) and the decrease of Major Industry customers found in reference (iv), please comment on the desirability of using an erosion factor in the profitability analysis of projects.
- Taking into account the decreasing consumption of Major Industry customers found in reference (iv), please comment on the desirability of using a 20-year analysis period for evaluating the profitability of network extensions for Major Industry customers. Please comment on the advantages of such a solution in relation to establishing a PI of 1.3 as proposed in reference (iii).

[Énergir highlights]

Énergir submits that the premise of the above questions is incorrect, and the resulting opinion of OC and ROEE experts is, therefore, equally incorrect.

Evolution of Major Industry customers (2/3)



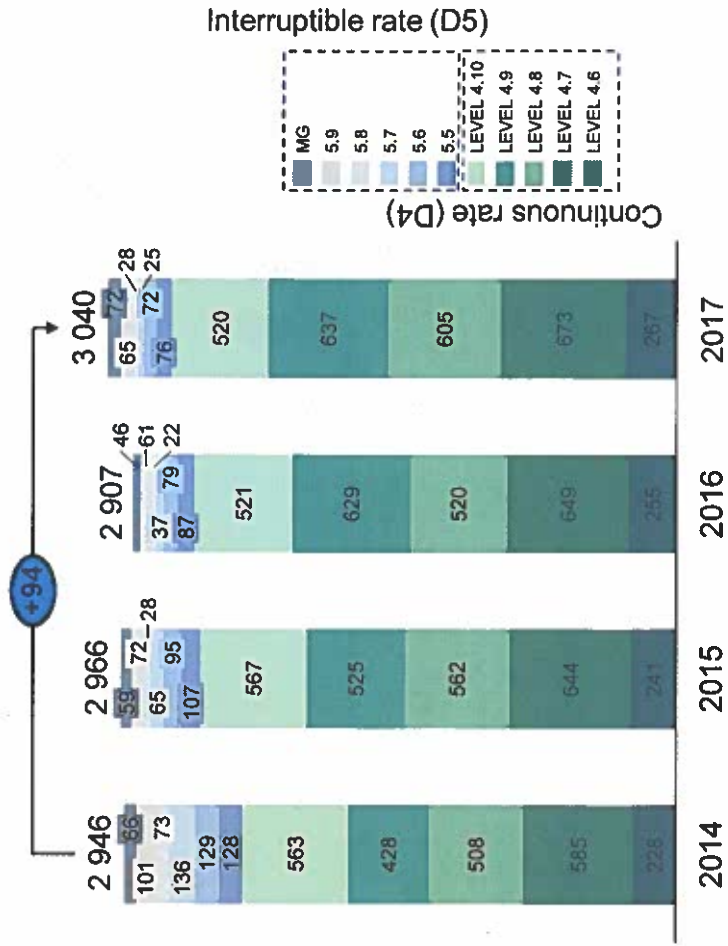
- The number of users is established based on the number of **active contracts per rate**; customers with **combined rates** are therefore accounted for in each rate and are not lost even if they abandon the interruptible portion in favour of the continuous portion or vice versa.
- The evolution that the Régie “observes” from the references submitted concerns D₄ and D₅ rates; Major Industry customers may also end up with **D₁ and D₃ rates following migration between rates** over the period.
- To analyze the evolution of the customer base, it is preferable to use the number of installations, since one installation may consist of more than one contract (combined rate). The number of Major Industry customers **increased by 3** between 2014 and 2017.
- As for volumes, the total consumption observed between 2014 and 2017 increased by 94 million cubic metres, so there is **no erosion of volumes**.

Énergir’s analyses based on references submitted by the Régie show an increase in the number of Major Industry sales volumes and customers.

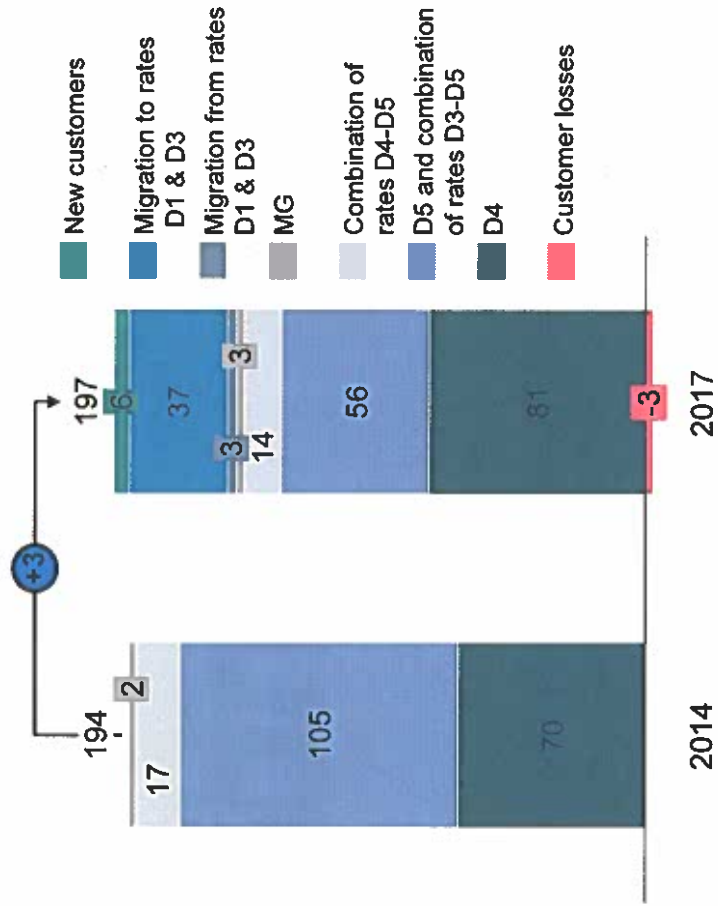
Evolution of Major Industry customers (3/3)



Consumption volume of D₄ and D₅ rates
2014 to 2017, in millions of m³



Evolution of Major Industry customers
2014 to 2017, in number of installations



THANK YOU!