

RÉGIE DE L'ÉNERGIE

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

DOSSIER : R-3867-2013 PHASE 1

RÉGISSEURS : M. LAURENT PILOTTO, président  
M. PIERRE MÉTHÉ  
Mme LOUISE PELLETIER

AUDIENCE DU 16 AVRIL 2015

VOLUME 4

JEAN LAROSE et CLAUDE MORIN  
Sténographes officiels

COMPARUTIONS

Me AMÉLIE CARDINAL  
procureur de la Régie;

DEMANDERESSE :

Me HUGO SIGOUIN-PLASSE  
procureur de Gaz Métro;

INTERVENANTS :

Me GUY SARAULT  
procureur de Association des consommateurs  
industriels du gaz (ACIG);

Me ANDRÉ TURMEL  
procureur de Fédération canadienne de l'entreprise  
indépendante (FCEI);

Me FRANKLIN S. GERTLER  
procureur de Regroupement des organismes  
environnementaux en énergie (ROÉÉ);

Me DOMINIQUE NEUMAN  
procureur de Stratégies énergétiques et Association  
québécoise de lutte contre la pollution  
atmosphérique (SÉ-AQLPA);

Me PIERRE D. GRENIER  
procureur de TransCanada Energy Ltd (TCE);

Me HÉLÈNE SICARD  
procureure de Union des consommateurs (UC);

Me RAPHAËL LESCOP  
procureur de Union des municipalités du Québec  
(UMQ).

TABLE DES MATIERES

	PAGE
LISTE DES ENGAGEMENTS	4
LISTE DES PIÈCES	5
PRÉLIMINAIRES	10
PREUVE ACIG	10
ROBERT D. KNECHT	14
INTERROGÉ PAR Me GUY SARAULT	14
CONTRE-INTERROGÉ PAR Me HUGO SIGOUIN-PLASSE	54
INTERROGÉ PAR Me AMÉLIE CARDINAL	86
INTERROGÉ PAR LA FORMATION	108
DISCUSSION	120
PREUVE ROÉÉ	123
PAUL L. CHERNICK	123
BERTRAND SCHEPPER	124
INTERROGÉS PAR Me FRANKLIN S. GERTLER	125

LISTE DES ENGAGEMENTS

PAGE

E-9 (GM)	<p>1. Veuillez identifier le nom des champs contenus dans les bases de données suivantes :</p> <ul style="list-style-type: none"><li>- le système SAP, pour les modules relatifs à la comptabilisation et à l'amortissement du coût des conduites principales, des branchements et des compteurs;</li><li>- le livre des immobilisations;</li><li>- la banque de données comptables utilisée aux fins de l'allocation des coûts.</li></ul> <p>2. Veuillez expliquer comment, à la fin d'une année, pour un projet d'investissement fictif réalisé en cours d'année, les données comptables et techniques relatives à ce projet sont intégrées dans chacune de ces banques de données, en distinguant, notamment, les informations relatives aux conduites principales, aux branchements et aux compteurs (demandé par la Régie)</p>	13
E-10 (ACIG)	<p>To provide calculations for the derivation of Mr. Knecht's table that appears at slide 6 of his Power Point presentation (demandé par le ROÉÉ)</p>	84

LISTE DES PIÈCES

		<u>PAGE</u>
B-0114 :	Engagement No. 4	11
B-0115 :	Engagement No. 7	11
C-ACIG-0037 :	Affidavit of documents by Mr. Robert D. Knecht	15
C-ACIG-0038 :	PowerPoint presentation by Mr. Robert D. Knecht	15

1 L'AN DEUX MILLE QUINZE (2015), ce seizième (16e)  
2 jour du mois d'avril :

3

4 PRÉLIMINAIRES

5

6 LA GREFFIÈRE :

7 Protocole d'ouverture. Audience du seize (16) avril  
8 deux mille quinze (2015), dossier R-3867-2013,  
9 Phase 1. Poursuite de l'audience du quinze (15)  
10 avril deux mille quinze (2015).

11 LE PRÉSIDENT :

12 Bonjour à tous. Vous êtes satisfaits des résultats  
13 de la partie de hockey? Maître Sigouin-Plasse.

14 Me HUGO SIGOUIN-PLASSE :

15 Oui?

16 LE PRÉSIDENT :

17 Avez-vous des nouvelles? Bien moi, j'ai des  
18 nouvelles pour vous pour le libellé de l'engagement  
19 mais...

20 Me HUGO SIGOUIN-PLASSE :

21 Oui. Bien voulez-vous qu'on procède à ça? En fait,  
22 j'ai deux engagements à déposer. On va peut-être...

23 LE PRÉSIDENT :

24 Allez-y, allez-y.

25

1 Me HUGO SIGOUIN-PLASSE :

2 Alors bonjour d'abord Monsieur et Madame le

3 Régisseurs. Alors engagement numéros 4 et 7. Donc

4 engagement numéro 4 sera coté B?

5 LA GREFFIÈRE :

6 114.

7 Me HUGO SIGOUIN-PLASSE :

8 B-0114 et engagement numéro 7 B-0115. Voilà. C'est

9 fait.

10

11 B-0114 : Engagement No. 4

12

13 B-0115 : Engagement No. 7

14

15 LA GREFFIÈRE :

16 Merci.

17 LE PRÉSIDENT :

18 Bien, l'autre s'en vient j'imagine. C'était quoi le

19 deuxième?

20 Me HUGO SIGOUIN-PLASSE :

21 Ce que je viens de déposer?

22 LE PRÉSIDENT :

23 Numéro 4 et?

24 Me HUGO SIGOUIN-PLASSE :

25 Numéro 4 et numéro 7 donc B-0114 étant l'engagement

1            numéro 4, la liste de documents communiqués au Dr.  
2            Overcast et l'engagement numéro 7 étant, donc, B-  
3            0115, fournir le nombre de contrats en achat direct  
4            à prix fixes en gaz d'appoint.

5            LE PRÉSIDENT :

6            Très bien, merci.

7            Me HUGO SIGOUIN-PLASSE :

8            Voilà.

9            LE PRÉSIDENT :

10           Je vais attendre que madame la greffière revienne  
11           avec nous. Donc, Madame la Greffière, j'ai fait des  
12           copies. Donc c'est l'engagement numéro 9 libellé  
13           par la Régie. Alors, je ne sais pas si j'en ai fait  
14           assez de copies mais... Puis je vais le lire. Oui,  
15           oui, on le... Donc pour les notes sténographiques  
16           je vais le lire. Donc engagement numéro 9 qui a été  
17           formulé par la Régie hier.

18

19

20           E-9 (GM)            1. Veuillez identifier le nom des  
21                              champs contenus dans les bases de  
22                              données suivantes :  
23                              - le système SAP, pour les modules  
24                              relatifs à la comptabilisation et à  
25                              l'amortissement du coût des conduites



1 principales, des branchements et des  
2 compteurs;  
3 - le livre des immobilisations;  
4 -la banque de données comptables  
5 utilisée aux fins de l'allocation des  
6 coûts.  
7 2. Veuillez expliquer comment, à la  
8 fin d'une année, pour un projet  
9 d'investissement fictif réalisé en  
10 cours d'année, les données comptables  
11 et techniques relatives à ce projet  
12 sont intégrées dans chacune de ces  
13 banques de données, en distinguant,  
14 notamment, les informations relatives  
15 aux conduites principales, aux  
16 branchements et aux compteurs (demandé  
17 par la Régie)

18  
19 Alors, avec la réponse à ça, ça devrait nous mettre  
20 tous sur le même pied en matière de compréhension  
21 de ce qui est dans vos systèmes ou ce avec quoi Gaz  
22 Métro travaille. Alors voilà. Donc on est prêts, je  
23 crois, à débiter avec la présentation de la preuve  
24 de l'ACIG, Maître Sarault.

25

1 Me GUY SARAULT :

2 Alors bonjour Monsieur le Président, Monsieur le  
3 Régisseur, Madame la Régisseuse. Alors pour l'ACIG  
4 nous avons un seul témoin, il s'agit de notre  
5 expert, monsieur Robert Knecht de la firme  
6 Industrial Economics alors avant d'aller plus loin,  
7 on va demander à la greffière d'assermenter  
8 monsieur Knecht.

9

10

11 PREUVE ACIG

12

13 L'AN DEUX MILLE QUINZE (2015), ce seizième (16e)  
14 jour du mois d'avril, ont comparu :

15

16 ROBERT D. KNECHT, Principal, Industrial Economics  
17 Incorporated, place of business located at 2067  
18 Massachusetts Avenue, Cambridge, Massachusetts,  
19 USA;

20

21 LEQUEL, après avoir fait une affirmation  
22 solennelle, dépose et dit :

23

24 INTERROGÉ PAR Me GUY SARAULT :

25 Q. [1] Alors, Mr. Knecht, before we proceed with your

1 presentation, there are two additional documents  
2 that I would like to file. The first one is exhibit  
3 C-ACIG-0037, would be your affidavit of documents  
4 and the second, as exhibit C-ACIG-0038, would be  
5 your PowerPoint presentation summarising the  
6 salient aspects of your evidence. But before we  
7 proceed with the contents of your presentation, do  
8 you have any addition, correction to make to any of  
9 the documents listed in your affidavit, exhibit  
10 0037?

11

12 C-ACIG-0037 : Affidavit of documents by Mr.  
13 Robert D. Knecht

14

15 C-ACIG-0038 : PowerPoint presentation by Mr.  
16 Robert D. Knecht

17

18 (9 h 10)

19 A. I do. In my evidence, which I believe is C-ACIG-  
20 0028...

21 Q. [2] Correct.

22 A. ... at page 16, line 2, at the end of the line,  
23 there's a number that says eighty point seven  
24 (80.7); that should be eighty-one point four  
25 (81.4). On page 17, there's a figure IEC-1, and it

1 is mislabeled. Mister Chernick was diligent enough  
2 to identify this error, and he was correct, that  
3 the data that I plotted weren't exactly the data I  
4 wanted to plot. But nevertheless, in order to  
5 correct the evidence, the label should be for the  
6 orange squares; instead of one hundred fourteen  
7 point three (114.3), it should be sixty point three  
8 millimetres (60.3 mm).

9 In the grey triangles, rather than a  
10 hundred and sixty-eight point three (168.3), it  
11 should be a hundred and fourteen point three  
12 (114.3). And the blue Xs, instead of being two  
13 hundred and nineteen point one (219.1), should be  
14 one hundred and sixty-eight point three (168.3).  
15 Basically, I've got the sizes dislocated by a  
16 column.

17 And finally, on page 24, the whole section  
18 that runs from line 4 through the table to the  
19 bottom of the page, in rethinking, in responding to  
20 interrogatories, how you might make an adjustment  
21 for meters cost, I developed an alternative  
22 approach, in the response to a data request from  
23 the Régie, which was item 5.1. So, in essence, that  
24 section of testimony has been replaced by the  
25 response to Régie data request 5.1. Those are the

1 corrections that I have.

2 Q. [3] Perfect. So I believe we can now proceed to  
3 your presentation. Pardon? Oui. C'est déjà fait.  
4 The presentation? Exhibit C-ACIG-0038. Sorry.

5 A. I'm sorry. What is the number?

6 Q. [4] 0038.

7 A. Okay. Well mister Chairman, members of the panel,  
8 I'd like to give you a summary of my evidence, I  
9 don't know if you remember President Harry Truman  
10 of the United States, but Harry Truman once said  
11 that he wanted was a one handed economist, because  
12 whenever an economist would say something, the  
13 economist would say something, and then he would :  
14 but on the other hand, and he's say something else.  
15 I'm afraid that at least some of my presentation is  
16 going to fall into the two handed economist  
17 category.

18 We're here to try to develop a methodology  
19 for allocating the costs, for allocating the  
20 revenue requirement for Gaz Métro to the customers.  
21 In some sense, I think we have to keep in mind that  
22 where we are in your process right now, we're not  
23 allocating costs to rate classes, because we don't  
24 know what the rate classes are going to be. So when  
25 in doubt, I think we have to be thinking about

1 allocating costs to customers, rather than  
2 allocating costs to classes. Because I don't know  
3 how flexible or how many different kinds of things  
4 you're going to change, when you get to the rate  
5 design change. I take note of your comment  
6 yesterday, mister Chairman, that the northern zone  
7 and the southern zone is not something you want to  
8 go back to. But I think, in general, we have to  
9 think about this processes, allocating costs to  
10 customers, and not to classes.

11 In terms of the basic principles, I don't  
12 think I have any serious disagreements with the  
13 evidence that the company has put on the table. We  
14 want to avoid economic cross-subsidies, the  
15 standard, I certainly heard doctor Overcast say it  
16 yesterday; the allocated cost should be no less  
17 than the incremental cost of providing the service  
18 to that customer, and it should be no more than the  
19 stand-alone cost of providing service to that  
20 customer. That may not help a lot, because there's  
21 a big gap between those two things in general. But  
22 those are the fundamental principles that economic  
23 theory provides.

24 Moving on from there, we'd like to try to  
25 allocate costs based on cost causation; what are

1 the factors that causes the utility to incur costs?  
2 And what is each class's responsibility for that  
3 cost causation factor.

4 A third principle is that you really only  
5 want to assign costs for the asset that a customer  
6 uses. Now, that's very similar to the cost  
7 causation principle, that is if a customer doesn't  
8 use the distribution system, you shouldn't be  
9 assigning costs of the distribution system to that  
10 customer.

11 A fourth principle that I look at in doing  
12 cost allocation is that in general, should I be  
13 closer to the mike here, in general, direct  
14 assignment, when you can do it, is preferable to  
15 allocating into an arbitrary allocation, because if  
16 we know that a specific asset is being used for a  
17 specific customer, we want to assign that cost, the  
18 cost for that asset, to that customer. I think, in  
19 general, that's a principle that most people who do  
20 cost allocation espouse.

21 And, finally, there's the practical  
22 attributes that you like to see. These aren't  
23 requirements, but they are advantages for cost  
24 allocation, namely stability and simplicity.

25 Obviously, the elephant in the room, as it

1 were, when we come to cost allocation, is what to  
2 do with the mains. And Gaz Métro has three basic  
3 categories of mains, it has distribution mains,  
4 three basic categories that it keeps track of with  
5 respect to mains. They are delineated by operating  
6 pressure. You have distribution mains at the lowest  
7 pressure, you have what they call either supply or  
8 alimentation mains at a medium operating pressure,  
9 and you have transmission mains at the highest  
10 operating pressure.

11 In terms of allocating mains' costs, there  
12 is no perfect method, there is no agreed-upon  
13 method. If there were a simple answer to this  
14 problem, we'd have sorted it out a long time ago,  
15 we wouldn't all be going around and arguing about  
16 minimum system and zero intercept, and which is  
17 better and which is worse, if this were a clear  
18 problem.

19 From my perspective, the thing that comes  
20 the closest, the method that I've seen, and seen  
21 only rarely, is to really get into the details of  
22 your system and try to allocate the mains pipe by  
23 pipe. That is, you look at any particular pipe,  
24 you look at all of the customers that are served  
25 downstream of that pipe, and you allocate the cost



1 for that pipe only to those customers that are  
2 downstream from that pipe. At least in that way you  
3 have now reflected how your system is designed, how  
4 it's built, who is using the system at present.

5 Even that method isn't going to be perfect,  
6 because in a lot of times you have a lot of excess  
7 capacity sitting in any particular main and you  
8 need to decide how you're going to deal with  
9 allocating the excess capacity. But in terms of  
10 resolving the kind of big conflict and the big  
11 range of results that you get in allocating mains'  
12 costs, this is the only method that I see that I  
13 would feel some comfort in actually reflects the  
14 physical reality of a particular gas distribution  
15 system.

16 Having said that, not many utilities do it.  
17 It's data-intensive, you need to know a lot about  
18 your system. I would guess that as GIS and system  
19 modelling technology evolves, we will get closer  
20 and closer to being able to do that. I did a case  
21 in the early nineteen nineties (1990s) where a  
22 utility did do it, but that was a manual and data-  
23 intensive and ugly process that was extremely  
24 difficult. As you get more and more detailed  
25 knowledge of your system and who the customers are

1 served, you can start saying, "I know, for any  
2 particular piece of pipe, who is served downstream  
3 from that, and I can then allocate the costs for  
4 that piece of pipe only to those customers."

5 Yesterday Gaz Métro said, "We can't do  
6 that. We certainly can't do that." So now you're  
7 looking for second-best solutions. There are other  
8 methods that are directionally similar starting to  
9 get to a more detailed and more careful matching of  
10 the costs that are incurred with the specific  
11 customers that are using it. One option is to  
12 segregate the costs by operating pressure. I've  
13 certainly participated in cases where utilities do  
14 that. I have one sitting on my desk right now,  
15 which I probably should be working on today. In the  
16 Gaz Métro framework, it would be equivalent to  
17 saying, "I'm looking at my supply mains, I have a  
18 set of customers who take service at supply main  
19 pressure; I should allocate supply main costs to  
20 those customers, as well as all of the downstream  
21 customers, but I shouldn't be allocating any  
22 distribution costs to those customers, because  
23 those customers who are taking pressure at supply  
24 pressure are not using the distribution system.  
25 And, therefore, under the principles that I laid

1 out, you shouldn't be assigning those costs.

2 The other two examples, the other two types  
3 of approaches that I see are looking at your larger  
4 customers. These methods, as I'll speak to in a  
5 minute, tend to produce... the different methods  
6 that are in use produce wildly different results,  
7 particularly for large customers, because large  
8 customers just... each is individual and each has  
9 its own characteristics and each has its own impact  
10 on any particular system. Probably in gas the one  
11 that I see most often is that rather than using an  
12 allocation method for large industrial customers,  
13 gas utilities try to directly assign the costs that  
14 are specifically used to serve those customers.  
15 Now, that's essentially they allocate cost pipe by  
16 pipe, but instead of trying to do it for the whole  
17 system, you're only doing it for the piece of the  
18 system that serves the large industrial customers.

19 And similarly, with respect to regional  
20 cost allocation, obviously if you're allocating  
21 costs pipe by pipe, you're allocating costs  
22 customer by customer and region by region, and  
23 you've done this level of detail. Regional cost  
24 allocation, again, is more specific than a global  
25 approach in that it is now trying to more carefully

1 match the costs with a particular region with the  
2 customers served in that region.

3 Now, that doesn't mean because you do...  
4 and I'm sorry to take issue with Dr. Overcast, just  
5 because you've allocated the costs region by region  
6 doesn't mean you need to set the rates that way.  
7 You've allocated the costs, you can then decide,  
8 for policy reasons or for a lot of reasons, that  
9 you want to use postage stamp rates. But by  
10 allocating the costs region by region, you have  
11 better-matched costs with usage and, you know,  
12 you've done the cost allocation accurately. Rate  
13 design is a different matter.

14 (9 h 25)

15 In its proposal, Gaz Métro isn't pursuing  
16 any of these options. The only differentiation that  
17 the company makes in its cost allocation is between  
18 transmission and then combined distribution-supply,  
19 supply mains. All customers are essentially assumed  
20 to use all systems, there's no direct assignment of  
21 costs. There's...

22 Q. [5] Excuse me, Dr. Knecht. I'm having complaints  
23 about the low level of your voice. Could you put  
24 the microphone closer to you and speak louder  
25 please. Thank you.

1 A. My apologies. Alright, my train of thought is  
2 boarding at the station. Gaz Métro isn't pursuing,  
3 is not taking any of those options and I'm sorry to  
4 say but this basically leaves us where you were  
5 twenty (20) some odd years ago when you did a  
6 detailed evaluation of cost allocation and, in many  
7 ways, we're seeing the same conceptual arguments  
8 that were there twenty (20) years ago and maybe for  
9 decades before that, before I started doing any of  
10 this kind of work.

11 I would still encourage Gaz Métro to look  
12 at more detailed assignments of costs, particularly  
13 to large industrial customers as part of its  
14 continuing effort. Maybe the technology isn't there  
15 right now to go to a more direct assignment of  
16 costs but it, I think, should be moving in that  
17 direction and looking seriously at either direct  
18 assignment of costs to industrial customers or at  
19 least segregating the allocation of costs by  
20 operating pressure. Is that better?

21 However, if we can't move to something  
22 that's more specific, the basic generic options are  
23 what they've been for a long time. These are the  
24 basic approaches that cost analysts use to allocate  
25 costs. There's the hundred percent (100%) demand

1 method. That method says all mains costs are  
2 related to peak demand or related to some measure  
3 of aggregate use so either peak demand or  
4 consumption.

5 That method implicitly assumes that the  
6 length of the mains are not related to the number  
7 of customers. It implicitly assumes that the mains  
8 requirement for a thousand (1,000) small customers  
9 in terms of the length of the mains is the same as  
10 that for one large industrial customer as long as  
11 the two use the same, have the same total peak  
12 consumption.

13 As Mr. Chernick points out, this approach  
14 is used in places in the United States. In my  
15 experience, it's not used in Canada but in those  
16 places in the United States where it is used, those  
17 places also tend to be places where there is more  
18 direct assignment, because this method assigns a  
19 lot of costs to large industrial customers. Where  
20 this method is used, there are also a lot of  
21 different both cost allocation and rate design  
22 approaches that are used for large industrial  
23 customers that essentially reduce the costs that  
24 are born by large industrial customers.

25 There's the zero intercept method. I think

1 Dr. Overcast explained accurately what the  
2 advantage of that is. You currently use a version  
3 of the zero intercept method. It's based on the  
4 idea that the demand-related portion of costs is  
5 the cost to make the pipe bigger from something  
6 that has a theoretical zero diameter and that  
7 everything else is customer-related.

8 In my evidence I've got some arithmetic in  
9 the appendix. It's a widely used method but,  
10 theoretically, it's not perfect. The traditional  
11 minimum system method is similar to the zero  
12 intercept except that rather than using a  
13 theoretical zero diameter pipe, it uses the  
14 smallest pipe installed on the system. It is often  
15 criticised, it has the same flaws as the zero  
16 intercept from a conceptual and arithmetic  
17 standpoint. It also is criticised in that it says  
18 this minimum system has some load carrying  
19 capability.

20 Which leads to something that I've called  
21 the adjusted minimum system method which says we  
22 are going to define the customer component, the  
23 access component of costs based on the cost of some  
24 small diameter pipe. But then, we are going to try  
25 to adjust the demand allocators, the allocation

1 factors that are used to assign the costs for the  
2 demand portion to reflect the fact that some of  
3 that demand portion is met by the minimum system.  
4 This addresses the load carrying problem of the  
5 minimum system, it doesn't address some of the  
6 other conceptual problems.

7 (9 h 35)

8 And the second problem is, two more  
9 problems associated with the adjusted minimum  
10 system from a theoretical standpoint. First, it's  
11 very hard to say what the load carrying capability  
12 of this minimum system is. Because look at it  
13 conceptually; the idea of the minimum system is,  
14 instead of the system you have with eight inch, ten  
15 inch, six inch, four inch steel and plastic pipes,  
16 you take all of that, and the minimum system is  
17 essentially the system that's there, a system built  
18 based on a small main.

19 Now, for much of the distribution system,  
20 it's certainly possible that the minimum system  
21 will be able to meet the load carrying capabilities  
22 of all of the small customers. But if you started  
23 replacing your six inch mains, your eight inch  
24 mains, steel mains that supply pressure, and you're  
25 serving hundreds or maybe thousands of customers



1 downstream from that, your minimum system isn't  
2 going to be able to meet the needs of all those  
3 customers.

4 So that, or there may be biases in both  
5 directions, with respect to the minimum system. One  
6 of them is a bias in that this minimum system, the  
7 access component, the load carrying capability of  
8 the minimum system is overstated. That is the  
9 access component is understated, because the  
10 minimum system, as defined, can't really meet the  
11 supplier requirements for all those customers.

12 And the second issue, which I think you see  
13 to a significant extend in the difference between  
14 the results in doctor Overcast's method and in  
15 mister Chernick's method, is now, you have to, when  
16 you're defining your minimum system, is how do you  
17 share the economies of scale associated with that  
18 bigger pipe. Should the economies of scale be  
19 focused on the smaller customers or on the larger  
20 customers? And I think that's also a very  
21 contentious debate, with respect to the use of  
22 minimum system.

23 I mentioned that these different approaches  
24 have a significant impact on customers, and  
25 particularly on large industrial customers. And

1 I've tried to put the range of results in this  
2 table, just to give you a sense of the implications  
3 for total distribution and supply costs, to what is  
4 currently the D-4 and D-5 customers. And I've kind  
5 of laid out all of the different methods I think  
6 that are in place here.

7 The basic issue, with respect to large  
8 industrial customers, is they represent fifty-four  
9 percent (54 %) of what they call the CA, the design  
10 day design. They represent point one percent  
11 (0.1 %) of the customers. So you could see why,  
12 depending on what the customer component is of the  
13 costs, it can have a big effect on these customers.  
14 So I've kind of laid out the percentage of costs  
15 that would be assigned to current D-4, D-5 classes  
16 in the first row of this table, which is what I'm  
17 going to focus on here. And obviously, in a hundred  
18 percent (100 %) demand method, full fifty-four  
19 percent (54 %) gets assigned to large industrial  
20 customers. Under the tables 2 and 4, in mister  
21 Chernick's evidence, something on the order, rough  
22 order of fifty percent (50 %) of the costs would  
23 implicitly be assigned to the D-4, D-5 class.

24 The company's method, what I've labelled,  
25 the black of each minimum system method: twenty-

1 four percent (24 %). A zero intercept method that's  
2 applied only to the distribution system also puts  
3 you in that range. The current method also puts you  
4 in that range, again, twenty-three percent (23 %),  
5 a little lower. That's compounded not only by  
6 methodology, but also by the use of the CAU  
7 allocator versus the CA allocator.

8 And if you go to applying the minimum  
9 system, the traditional, either a traditional zero  
10 intercept or a traditional minimum system, to both  
11 the distribution and the supply pieces, the  
12 percentage that would be assigned to the large  
13 industrial class is much lower, at seventeen (17)  
14 and ten percent (10 %).

15 So depending on the range of methods that  
16 are in fact in use at different utilities, you've  
17 got a range for the biggest cost item in the cost  
18 allocation study, and the cost that drive many of  
19 the other costs in the cost allocation study,  
20 ranging from ten percent (10 %) across to fifty-  
21 four percent (54 %) across, a factor of five to one  
22 for the D-4 and D-5 customers.

23 And, you know, this is why there's an  
24 extensive debate about this. And this is why I  
25 think a direct assignment method for large

1 industrial customers is much better than trying to  
2 use any of these methods, because the methods are,  
3 they are so disparate.

4 I hesitate to go through this chart. I  
5 tried to put this debate into a little bit of a  
6 different perspective. Again, from the perspective  
7 of those customers who are currently D-4 and D-5  
8 customers. And what I've tried to do in this chart  
9 is say for each size main that's out there, what  
10 percent of the costs are being assigned to the D-4  
11 and D-5 class. And I've used steel as an example,  
12 and I've picked a couple of the different methods  
13 that are there, so as to not make this chart too  
14 busy and completely hopeless. But what you have in  
15 this chart, on the Y axis, is the percentage of  
16 allocated costs that are assigned to the D-4 and  
17 D-5 class. And on the X axis, what you have is the  
18 size of the pipe. So as you move to the right, the  
19 pipes get bigger. And as you move up, more costs  
20 get assigned to the D-4 and D-5 class.

21 The dotted line shows the percentage of the  
22 demand. That's the fifty-four percent (54 %) that I  
23 talked about. If you assigned the mains cost on the  
24 basis of demand it would be that dotted line going  
25 across and used a hundred percent demand method all

1 of those costs would be assigned , fifty-four  
2 percent (54%) of all costs would be assigned to the  
3 D-4 and D-5 class.

4 Let me start with the dark blue diamonds,  
5 which is the company's method, the company's  
6 minimum system method. And starting over on the  
7 left-hand side, for the smaller... for all of the  
8 smaller main sizes, you can see that about thirty  
9 percent (30%) of the costs for the two-inch (2")  
10 mains, for two-inch (2") steel mains, are being  
11 assigned to the D-4 D-5 class.

12 That seems like a high percentage to me,  
13 because, in general, the smaller mains don't have  
14 the capacity to serve the largest industrial  
15 customers. So that, in general, it's a little  
16 surprising to see a number that big for small  
17 mains.

18 Why is this happening, given that the  
19 company is using a minimum system method, where you  
20 would think that the smallest mains are virtually  
21 all customer-related, and, therefore, D-4 D-5  
22 should not be assigned very much of these costs.  
23 And the reason is, we're looking at steel mains and  
24 there's a very big cost difference, using the  
25 company's deflator -- you knew I would get there --

1           there's a very big cost difference between a two-  
2           inc (2") plastic main, which is what Dr. Overcast  
3           uses for his minimum system, and a two-inch (2")  
4           steel main, such that the cost of the two-inch (2")  
5           steel main, without getting into the specifics, is  
6           roughly twice as large as the two-inch (2") plastic  
7           main.

8                         So what that means is, for a two-inch (2")  
9           steel main, half the costs are considered demand-  
10          related.    So, not surprisingly, if half the costs  
11          are demand-related and large industrial customers  
12          represent fifty-four percent (54%) of demand, they  
13          get about thirty percent (30%) of the costs of  
14          those mains.    And I think that's one of the  
15          troubling aspects to the company's method that I  
16          see, which is that it's assigning a lot of those  
17          costs to the large industrial customers.

18                        By contrast, if you follow those blue  
19          diamonds out, as you get to bigger and bigger  
20          pipes, you would expected, because, you know, as  
21          you get to the larger and larger pipes, you're now  
22          getting closer and closer to what the transmission  
23          pipes tend to look like, you would expect those  
24          costs to rise up and get pretty close to the fifty-  
25          four percent (54%), because at the top end, you

1 would expect those costs to... and the company's  
2 method does reflect that reasonably, although there  
3 still remains a fairly decent-size gap on the  
4 large-diameter pipe between the share of costs that  
5 the company assigns and the share of costs that you  
6 would get on a demand allocator for transmission  
7 mains.

8 Let me go to the zero intercept method, and  
9 the zero intercept method similar to what you use  
10 now are in the triangles. And here, when we look  
11 at the small diameter pipe... because I've used a  
12 zero intercept distribution-only method and I've  
13 used it in the more traditional way, where you have  
14 a separate regression for your steel pipes and a  
15 separate regression for your plastic pipes. The  
16 percentage of the costs for the small mains, the  
17 small steel mains that are assigned to the D-4 D-5  
18 class is very low, in the less than ten percent  
19 (10%) range, because you're using a zero intercept,  
20 so there's still some load-carrying capability in  
21 your small pipes, and that gets assigned to those  
22 classes, but it's a relatively small percentage.

23 And then it rises quickly and gets up, and  
24 gets up; as you see, the triangles rise quickly and  
25 gets up to about fifty-four percent (54%), because

1 when you get to the larger steel pipes, most of  
2 those are supply pipes and should be... you know,  
3 and can be allocated based on demand.

4 And finally, I've included at least my  
5 understanding of Mr. Chernick's proposal in this  
6 perspective, and using his Table 4, I plotted those  
7 results also on this chart. And you can see that  
8 it's quite different conceptually than the other  
9 two (2) methods, which is, for the smallest pipes,  
10 he's assigning virtually nothing to the large  
11 industrial customers. But then, as soon as you get  
12 above a two-inch (2") main, he's actually assigning  
13 a disproportionately large percentage to the large  
14 industrial class; more, in fact, than that class'  
15 percentage of overall demand. And that's because  
16 he has a demand adjustment factor so that the  
17 access component in Table 4 for any pipe above two  
18 inches (2") is virtually nothing. So virtually all  
19 the costs are being assigned based on demand, and  
20 because demand for the smaller customers has been  
21 excluded, the impact on the larger customers is  
22 disproportionately high.

23 Let me turn to this issue about supply  
24 mains. In your current method, supply mains, the  
25 medium pressure mains are allocated based on



1 demand, on the metric for demand that you use. The  
2 company proposes to move those costs, aggregate  
3 those costs with distribution mains and allocate  
4 them all together. And that's an internally  
5 consistent approach with, I think, Dr. Overcast's  
6 philosophy for cost allocation and in the overall  
7 approach. I think, as I tried to show in the  
8 previous graph, it's not wildly out of line with  
9 what you would expect in terms of its implications  
10 for cost allocation.

11 (9 h 50)

12 The other approach that I think would make  
13 a lot of sense is, if you were segregating costs  
14 operating pressure and if, for those customers who  
15 are assigned, for those customers who are attached  
16 to the system, at supply pressure, you don't  
17 allocate any distribution costs. If you were in  
18 that kind of a framework, I think that it would not  
19 be unreasonable to allocate the costs a hundred  
20 percent (100%) demand, as I said, a two-handed  
21 economist.

22 Let me talk a little bit about some of the  
23 technical issues involved in the generic methods. I  
24 think that the substantial changes that you see in  
25 the proposal relative to your existing method is

1 that for interruptible customers, the company is  
2 proposing to use design day demand to allocate  
3 costs rather than the CAU factor that's currently  
4 used. That clearly allocates a lot more costs to  
5 interruptible customers, some of whom are my  
6 clients. I agree with Dr. Overcast in this respect,  
7 I agree with the company in this respect.

8 The distribution system, from what the  
9 company says, is built to serve those customers. It  
10 needs to be sized to meet the peak demands.  
11 Therefore, the demand related costs should be  
12 allocated to interruptible customers based on their  
13 peaks for the distribution and for the supply  
14 system.

15 We discussed it a lot yesterday with  
16 respect to transmission mains. The company, I  
17 think, has taken the position that there's at least  
18 some portion of interruptible demand for which the  
19 transmission mains are not sized and the company  
20 does not expand the transmission mains in order to  
21 meet that demand and it doesn't plan to meet that  
22 demand. That demand should not be counted with  
23 respect to transmission mains.

24 So for allocating transmission mains, I  
25 don't think you should assign any of those to

1 interruptible customers or, at least, not to  
2 interruptible demand related to transmission  
3 because you're not building to meet that. Again,  
4 the company has a disagreement, I think, between  
5 its expert and the company and I think the company  
6 has simply adopted a method that they think you  
7 want to see because that was a decision that the  
8 Régie had made in the past.

9           So, conceptually, interruptible customers  
10 are not causing you to incur these transmission  
11 costs. You may want to charge the interruptible  
12 customers something for using the transmission  
13 system. I would argue that should be a rate design  
14 issue and not a cost allocation issue. Let's  
15 allocate the costs based on cost causation, let's  
16 allocate the costs based on what you plan your  
17 system for. When we get to rate design, we can  
18 address this issue.

19           With respect to regional cost allocation,  
20 as I understand the existing method, it's partly  
21 regional, it partly reflects regional cost  
22 differences but it's not a truly regional cost  
23 allocation method. I don't think regional cost  
24 allocation is necessarily a bad idea, in general, I  
25 think it's a good idea. It's a better matching of

1 costs and facilities used where you have the data  
2 and where you can, basically, where you have the  
3 data.

4 In terms of continuing to apply the zero  
5 intercept method on a regional basis, I did some,  
6 not an extensive amount but some statistical  
7 analysis and looked at it and it was, you know,  
8 producing the kind of problems that you do often  
9 see with respect to zero intercept analysis, that  
10 is the slope of the line isn't working out right or  
11 the intercept term is not statistically significant  
12 and there's, you know, some debate about what the  
13 appropriate functional form would be so, based on  
14 the analysis that I was able to conduct, I would  
15 have concerns about trying to apply zero intercept  
16 on a regional basis. I wouldn't abandon regional  
17 analysis but based, at least, on what I saw. If you  
18 were going to continue to use the zero intercept  
19 method, I think it would have to be done at a... it  
20 would be better done at a global level just to  
21 avoid the kinds of problems that you see when  
22 you're trying to apply another regional level.

23 And finally, as I mentioned earlier, the  
24 customers who are attached transmission pressure,  
25 they're not using the distribution and the supply

1 system. You shouldn't assign those costs to them. I  
2 mean, this is kind of, this is, you know, hornbook  
3 direct assignment. If, you know, if there's a large  
4 industrial customer, there is a large industrial  
5 customer who is attached transmission pressure, the  
6 costs to attach that customer should be assigned to  
7 that customer. The costs for the distribution of  
8 the supply system should not be assigned to that  
9 customer, it's not using those systems and there's  
10 no reason to assign those costs.

11 (9 h 55)

12 And I fear I'm responsible for bringing  
13 this issue up. Many, but not all, utilities, when  
14 they're doing mains' cost allocation and they're  
15 looking at their historical costs, try to adjust  
16 those costs for historical construction cost  
17 inflation.

18 Now, some utilities don't do it, some  
19 utilities take the position, "Look, what we're  
20 doing is allocating embedded costs, so there's no  
21 reason to make any kind of inflation adjustment.  
22 We're just going to use flat embedded costs, we  
23 don't need the Handy Whitman Index, the Consumer  
24 Price Index, or any other index, we're just going  
25 to look at book costs." In that respect, I agree

1 with the company that you should adjust for  
2 inflation. And pretty much any method that you use,  
3 except the hundred percent (100%) direct assignment  
4 method... I'm sorry, a hundred percent (100%)  
5 demand method, is going to require you to do some  
6 adjustment of the costs. The reason that I think  
7 you should adjust for costs is that the objective  
8 of the exercise is to reflect the long-run costs of  
9 the mains.

10 One of the advantages of adjusting for  
11 construction cost inflation is that you avoid the  
12 problem associated with assigning costs to  
13 customers who happen to use old and depreciated  
14 equipment. I think that's an advantage because I'm  
15 trying to reflect long-run costs. Other people see  
16 it differently; they may say that you should assign  
17 your... "We're allocating embedded costs, you use  
18 old, depreciated equipment, it doesn't cost us  
19 much, that's what we're going to assign." From a  
20 stability standpoint, from a long-run stand point,  
21 from a reflect-the-cost-trend standpoint, I think  
22 you should make an adjustment.

23 However, you really should use an inflation  
24 adjustment that reflects the utility's costs. And I  
25 say in my evidence that the Handy Whitman Indexes,

1 which are regional for the United States, not for  
2 Canada, they are differentiated between steel and  
3 plastic, they are widely used, but when I look at  
4 the data and I look at the period that,  
5 particularly for steel mains, where most of Gaz  
6 Métro's construction took place, what I see  
7 declining costs after the inflation adjustment has  
8 been applied. And what that tells me is, for the  
9 period starting from nineteen eighty (1980), going  
10 through the period when most of the steel mains  
11 were constructed, which is the eighties ('80s) and  
12 the nineties ('90s), the Handy Whitman Index is  
13 overstating the cost inflation for the company, and  
14 that I think the company should use a different  
15 deflator that better reflects its costs.

16 Now, to be fair, there's an offsetting  
17 adjustment that's a problem, which is the costs  
18 which the company denotes as nineteen seventy-nine  
19 (1979) costs. For reasons I'm not sure I  
20 understand, but I think the company just does not  
21 know, for all the mains that were in place in  
22 nineteen seventy-nine (1979), when those mains went  
23 into place. It knows what the book value of the  
24 cost is, but those aren't nineteen seventy-nine  
25 (1979) dollars, those may be dollars from a much

1 earlier period. So that what's happening here is  
2 the inflation adjustment is overstating the cost  
3 effects from nineteen eighty (1980) forward, and  
4 understating the cost effects for the nineteen  
5 seventy-nine (1979)...

6 I think, from a conceptual standpoint,  
7 you'd like to try to fix those problems. I  
8 believe, in response to one of the Régie's data  
9 requests, I offered a suggested approach for how  
10 you might deal with a nineteen seventy-nine (1979)  
11 problem, for the nineteen eighty (1980) forward  
12 problem; I think you should just find an index that  
13 does not imply that the company's costs were  
14 declining steadily through that period.

15 The other thing is that when we're looking  
16 at long-run costs, and the objective of this  
17 deflation adjustment for inflation is to reflect  
18 the long-run costs that the company is going to  
19 incur. Now, for much of the smaller steel main  
20 system that's in place, in the long run the company  
21 isn't going to replace those mains with steel, it's  
22 probably going to insert plastic or it's going to  
23 replace those mains with plastic mains. So that  
24 what I suggested is that when you are adjusting  
25 costs for long run, when you're deflating costs to



1 reflect the long-run costs, that you reflect the  
2 replacement technology rather than the current  
3 technology, because that's what's going to drive  
4 the long-run costs. So, that's it on means.

5 (10 h 00)

6 Within my evidence, I address a set of  
7 other cost allocation issues. They're listed...  
8 some of them are listed here, I didn't go through  
9 them all. Let me touch briefly on them. The first  
10 is the meter's cost issue. One of the things that  
11 Gaz Métro does that I think is very good, not  
12 necessarily favourable for my clients, but I think  
13 is very good, is that it tries to reflect the  
14 different lifespan of meters in developing the cost  
15 allocation factor for meter's costs. Now, in my  
16 experience, most utilities don't... they don't try  
17 to do this. They take the average cost of a large  
18 industrial meter and the average cost of a  
19 residential meter, and they develop a way to  
20 customer allocator and that's how they allocate the  
21 costs.

22 Gaz Métro goes a step further and says, "I  
23 want to reflect the fact that these larger meters  
24 only last five years or seven years and the smaller  
25 meters last twenty (20) years, and I want to adjust

1 for that, because that's... there is a cost impact  
2 for that", I agree with that. Unfortunately, the  
3 nature of the adjustment that the company proposes  
4 is they propose a simple linear adjustment. If it  
5 lasts... For a meter that lasts only five years, it  
6 should be weighted four times as great as a meter  
7 that lasts twenty (20) years. From a utility  
8 revenue requirement perspective, that's correct, I  
9 think, for depreciation because over... the ratio  
10 of the depreciation costs are what you might call  
11 the return of capital. The ratio of costs for a  
12 meter that lasts five years is four times greater  
13 than that for one that lasts twenty (20) years.

14 However, from the perspective of the return  
15 on investment, your cost of debt, your cost of  
16 equity, your income tax cost, the overall return  
17 costs, those are not linear, and I think, without  
18 getting into the details of what I proposed in  
19 response to the Régie's request, is that that  
20 reduces the adjustment factor for shorter life  
21 meters relative to longer life meters, and that you  
22 should use an adjustment factor that reflects both  
23 the depreciation effect and the return effect, and  
24 not just the depreciation effect.

25 Second, when you're looking at... when

1       you're allocating demand related costs, we need  
2       each class's contribution to some measure of peak  
3       demand. And for gaz utilities, the use of something  
4       called design day demand or design hourly demand,  
5       here in the colder parts of the world, are the  
6       factors that the utility uses to design its system.  
7       It needs to design the system to be able to meet  
8       the demand in that peak hour or in that... on the  
9       peak day. In looking at what the company's  
10      methodology was, it wasn't clear to me that the  
11      company was being consistent in its treatment of  
12      whether it was using hourly demands for one set of  
13      customers and daily demands for another set of  
14      customers. I think they should use A, the criterion  
15      that they designed their system for, and second,  
16      they should be consistent between the classes in  
17      terms of how they measure the allocator.

18               The other thing I would suggest, that I  
19      know other utilities do, is that when they're  
20      looking at their design day allocator, particularly  
21      for the temperature sensitive rate classes, that  
22      they make sure that the number that they are using  
23      is grounded in reality. Now, you don't experience  
24      design conditions very often, because design  
25      conditions are set at an extreme level, but you do

1 experience system conditions that are close to  
2 design conditions. And it probably did this past  
3 winter if your weather was anything like ours.  
4 The... so, I think what the company should do is  
5 that when it develops the design day demand for the  
6 temperature sensitive classes, it makes sure that  
7 that allocation factor is consistent with its  
8 actual throughput on near peak days. And this is  
9 just a validation check. It's to make sure that the  
10 numbers in the cost allocation are consistent with  
11 physically, what's going on in the real world.

12 A few other smaller issues that I included  
13 in my testimony, working capital costs, for some  
14 utilities, working capital costs is a big component  
15 of rate base. It's not a huge component for Gaz  
16 Métro, but it's not insignificant. Often, working  
17 capital, the idea is that there's a lag between  
18 when the utility incurs its costs and when it gets  
19 paid. That lag varies... can vary quite a bit from  
20 customer class to customer class. So, in general,  
21 if there is a significant difference in the payment  
22 lag from class to class, then you ought to reflect  
23 that in... then you ought to reflect that in the  
24 allocation of the costs because each class's  
25 contribution to the working capital requirements

1 are different and depend on the lag for that class.

2 (10 h 05)

3 With respect to the sales and advertising  
4 costs, to its credit, the company tries to directly  
5 assign a portion of both sales and advertising  
6 classes as much as possible to the customer classes  
7 that those efforts are targeted at. Then there's a  
8 big pot of general costs in both of those classes  
9 and it's using a generic allocation factor to  
10 allocate those costs.

11 From my perspective, I think it makes more  
12 sense is usually the general sales, particularly  
13 general sales costs, those are there to support its  
14 other efforts and, therefore, I would allocate the  
15 general sales class and general advertising costs  
16 basically on the same basis that they allocated the  
17 directly assigned costs rather than using an  
18 overall general allocator.

19 The utility network tax, which I think was  
20 discussed yesterday morning briefly, is a tax, an  
21 asset based tax. It applies to much of the  
22 distribution system mains and supporting equipment.  
23 The only thing I noticed was that it appeared that  
24 the tax also applied to service lines and,  
25 therefore, I thought that the allocation factor

1 that gets used for that kind of tax should also  
2 include the costs related to the service lines.  
3 Basically, you want to allocate the tax on the same  
4 basis that it's imposed so that you want to include  
5 the assets in the allocation factor that are  
6 subject to the tax.

7 And getting down to the really small stuff,  
8 late payment revenues, it seemed like in the cost  
9 allocation study I was looking at, these were being  
10 allocated based on an allocation factor. You ought  
11 to know which customers are providing the late  
12 payment revenues and they ought to be directly  
13 assigned.

14 So that covers my overview. I know my  
15 attorney is going to ask so I'm going to skip right  
16 to it like a summary - I guess a summary of a  
17 summary - which is what my recommendations are.

18 First, I would recommend that you begin  
19 moving toward a more specific method of mains cost  
20 allocation. I start with not assigning supply and  
21 distribution costs to the customers who are  
22 attached at transmission pressure. I would direct  
23 the company to undertake a serious evaluation of  
24 both allocating the costs by operating pressure and  
25 looking into whether it makes more sense for large

1 industrial customers to try to directly assign  
2 costs than to do a generic allocation.

3 Second, to the extent you need to continue  
4 to use a generic method - either temporarily until  
5 your systems get better or on a permanent basis -  
6 what I'd say is, and I say it in my evidence, is  
7 the Gaz Métro approach, it's in the range of  
8 methods that are used in Canada. It's not producing  
9 terribly unreasonable results. An alternative to  
10 that would be to use a zero intercept method.  
11 Again, as I said, statistically that looks better.

12 On a global basis, the thing that I would  
13 do differently from the way it's done now is I  
14 would do separate regressions for plastic and steel  
15 because the cost relationship is very different for  
16 those two general technologies.

17 Third, for the interruptible customers, I  
18 would allocate the distribution and supply mains,  
19 the demand related portion of those things based on  
20 their peak demand. You may never hire me again but  
21 that's just the way you have to do it. And as I  
22 mentioned earlier, you shouldn't be assigning  
23 transmission costs to the interruptible demand  
24 because the transmission system is not being sized  
25 to meet that demand.

1                   Fourth, to adjust the historical mains  
2 costs to reflect long run costs, I would use a  
3 deflator that reflects Gaz Métro's cost trends, the  
4 Handy-Whitman Index at least for steel appears to  
5 be biased. Second, I would use the replacement  
6 technology in making that adjustment rather than  
7 the use of an obsolete technology.

8                   (10 h 10)

9                   Fifth, with respect to meters, for the life  
10 span waiting factor, I'd reflect both depreciation  
11 and return on taxes differently, the way the  
12 utility revenue requirement works, rather than  
13 simply only reflecting the depreciation effect.

14                   Sixth, with respect to the demand  
15 allocators, I would try to ensure consistency  
16 across classes in how you measure peak demand, and  
17 that the allocator be validated against near design  
18 days.

19                   And seventh, I hope that you will consider  
20 the other detailed cost allocation recommendations  
21 in my evidence.

22                   That concludes my summary of summaries.

23                   Thank you for your attention.

24                   Me GUY SARAULT:

25                   Alors, ceci complète la preuve en chef de l'ACIG et



1 le témoin est disponible pour les contre-  
2 interrogatoires.

3 THE PRESIDENT:

4 Merci, Maître Sarault. Thank you, Mr. Knecht.  
5 Maître Sigouin-Plasse.

6 Me HUGO SIGOUIN-PLASSE:

7 Avec votre permission, Monsieur le président,  
8 j'aimerais pouvoir m'asseoir avec mes gens pour  
9 aligner... évidemment dans la planification de  
10 l'audience j'avais annoncé une heure pour les  
11 experts, j'ai bon espoir qu'on ira pas là avec  
12 Monsieur Knecht ce matin, mais quand même je veux  
13 m'assurer que j'ai couvert tous les aspect, tous  
14 les angles notamment avec le Docteur Overcast.  
15 Donc, si vous permettez, peut-être me donner... une  
16 quinzaine de minutes devraient suffire, Monsieur le  
17 Président.

18 THE PRESIDENT:

19 Quinze minutes, très bien. Donc on va être de  
20 retour à disons, 10 h 30.

21 Me HUGO SIGOUIN-PLASSE:

22 Parfait.

23 SUSPENSION DE L'AUDIENCE

24 REPRISE DE L'AUDIENCE

25

1 (10 h 35)

2 LE PRÉSIDENT :

3 Maître Sigouin-Plasse?

4 Me HUGO SIGOUIN-PLASSE :

5 Oui. Alors merci Monsieur le Président. Monsieur  
6 Knecht, bonjour. You should put your headset  
7 because... Maybe, if you're comfortable with  
8 French, but I invite you to put your headset,  
9 because I'll switch to French. Je vais parler en  
10 français. O.K. Monsieur Knecht, donc, Hugo Sigouin,  
11 je suis procureur pour Gaz Métro. Je vais vous  
12 poser quelques questions. Et Monsieur le Président,  
13 je vous annonce que ça ne prendra pas une heure.  
14 Alors on va y aller, peut-être ça peut participer à  
15 la récupération du retard, là, mais je vous  
16 avouerai que ce n'était pas l'objectif que je  
17 poursuivais en identifiant les questions.

18 CONTRE-INTERROGÉ PAR Me HUGO SIGOUIN-PLASSE :

19 Q. [1] Ceci dit, Monsieur Knecht, vous avez, bon,  
20 assisté à l'audience hier. Peut-être n'étiez-vous  
21 pas là, par contre, mardi, lorsque que nous avons  
22 posé des questions au docteur Overcast, concernant  
23 la formule utilisée à l'heure actuelle pour  
24 calculer le zéro, pour évaluer l'Intercepte Zéro.  
25 Alors ne sachant pas ça, là, on va prendre un petit

1 peu de recul, et je vais vous poser une question,  
2 un peu la même question que j'avais posée au  
3 docteur Overcast à cet égard-là. Et pour ce faire,  
4 j'avais pointé ou porté à l'attention du docteur  
5 Overcast la page 30 de la traduction du document de  
6 réflexion de Gaz Métro, qui est la pièce C-ACIG-  
7 0008. You're there? Okay?

8 A. I have the document. I didn't get the reference.

9 Q. [2] It's at page 30. Okay? So just... Donc, juste  
10 sous, à la page 30, donc, juste sous le titre  
11 « Estimating the access component of the cost  
12 mains », vous avez, là, l'équation, la formule,  
13 l'équation, oui, pour estimer l'Intercepte Zéro. Et  
14 j'ai posé la question au docteur Overcast, à savoir  
15 est-ce que, à son avis, cette équation-là, dans  
16 l'éventualité où la Régie devait décider de  
17 maintenir l'approche de l'Intercepte Zéro, est-ce  
18 que cette équation-là est la bonne ou pas, pour  
19 évaluer l'Intercepte Zéro.

20 Et je vous suggère que la réponse du  
21 docteur Overcast était à l'effet que ce n'était pas  
22 la bonne équation. Et le docteur Overcast a  
23 produit, pour compléter sa réponse, un engagement.  
24 Peut-être que ça, vous n'avez pas ça avec vous,  
25 Monsieur Knecht. Mais l'engagement, c'est

1 l'engagement B-112. Alors si vous ne l'avez pas, je  
2 vais la porter à votre attention, avec la  
3 permission de maître Sarault. Alors, vous êtes là,  
4 Monsieur Knecht? Donc, vous avez l'engagement ou  
5 les informations rendues disponibles par le docteur  
6 Overcast avec cet engagement-là. Vous avez une  
7 référence à la I.G.T. Là, par contre, ne l'ayant  
8 pas sous les yeux, je ne pourrai pas compléter la  
9 référence. Mais vous avez un tableau où il y a,  
10 c'est une capture d'écran. Et vous avez, en toute  
11 fin du document, l'équation qui, selon docteur  
12 Overcast, devrait être utilisée dans l'éventualité  
13 où la Régie devrait retenir l'Intercepte Zéro.  
14 Alors ma question, d'abord, c'est est-ce que vous  
15 êtes d'accord avec l'équation qui est suggérée là  
16 par le docteur Overcast, à la toute fin, là, du  
17 document que vous avez sous les yeux?

18 A. I have no reason to disagree with the equation  
19 here. And this is an engineering equation that  
20 shows the capacity of mains, as a function of a  
21 number of variables, one of which is the size of  
22 the mains. I have no disagreement with this  
23 equation.

24 Q. [3] Okay. This equation, when you're saying this  
25 equation, we're looking at the...

- 1 A. Exhibit B-0112.  
2 (10 h 41)  
3 Q. [4] Yes. But there's a formula at the bottom of the  
4 page.  
5 A. Yes, the formula at the bottom of the page which  
6 begins with Q equals one hundred and thirty-six  
7 point nine (136.9) multiplied by a set of  
8 variables, many of which are not defined in the  
9 exhibit that you've given me but...  
10 Q. [5] Okay.  
11 A. I'm sorry, you want to go to the average...  
12 Q. [6] Yes.  
13 A. ... cost...  
14 Q. [7] Exactly, at the end of...  
15 A. I'm sorry.  
16 Q. [8] At the bottom of the page, yes.  
17 A. My apologies.  
18 Q. [9] It's okay.  
19 A. I'm off to a bad start here. The short answer is  
20 no.  
21 Q. [10] Okay.  
22 A. And let me... You'll want me to...  
23 Q. [11] Yes, I would ask you to explain why now.  
24 A. You'll want me to explain why and it's not even no,  
25 it's simply not necessarily. The objective of the

1 zero intercept model and, you know, the zero  
2 intercept model is certainly not perfect but the  
3 objective of the zero intercept model is to develop  
4 a component that is a fixed component that doesn't  
5 vary with the size of the main, that is it's a  
6 component that's related to the cost that's  
7 unrelated to diameter and it develops the other  
8 piece which is a cost that's related to the size of  
9 the pipe. That's its objective because it's  
10 objective then is to say, and it assumes, that the  
11 fixed piece is related to the access component and  
12 the other piece is related to the demand component.

13 Now, in Dr. Overcast's formulation, he is  
14 insisting that the specification that he uses  
15 requires that the demand component be, that the  
16 demand related cost be linearly proportional to the  
17 carrying capacity. And that would be nice if that  
18 were the case but, in fact, when you look at actual  
19 cost patterns, you have economies of scale, that is  
20 as the main cost gets bigger, okay?

21 You have a fixed cost but even within the  
22 demand related, the point, the part of the equation  
23 that varies with the demand of the pipe, you have  
24 economies of scale such that, typically, the cost  
25 per unit of carrying capacity gets smaller as the

1 pipe gets bigger. And Dr. Overcast has evidence to  
2 that effect and I don't think in general that  
3 anyone disagrees with that.

4 Just because there are economies of scale,  
5 however, in that demand component, it doesn't mean  
6 that those costs aren't demand related so that when  
7 I would use a zero intercept method, I wouldn't  
8 make an assumption as to what the data are trying  
9 to show me. I would look at the data and tell me  
10 what they're showing me so that if statistically  
11 the equation that's shown on page 30 of your  
12 exhibit fits the data better than the equation  
13 shown on the bottom of B-0112, I would use the  
14 equation on page 30.

15 Q. [12] Okay.

16 A. If the data show that - and sometimes they do,  
17 sometimes you actually see a functional shape that  
18 looks not dissimilar to the equation shown in  
19 exhibit B-0112 - then I would use that equation.  
20 But I would use the equation that fits the data  
21 because the objective is not to assume that demand,  
22 that the costs are linearly related to demand.

23 Q. [13] Okay.

24 A. The assumption is to segregate costs between access  
25 related and demand related.

- 1 Q. [14] Okay. I'll get my undertaking.
- 2 A. Oh, yes. I know where to find that so, yes.
- 3 Q. [15] This being said, Mr. Knecht, what was the  
4 equation you used for the calculation - I'm at page  
5 6 of your presentation which has been filed as C-  
6 ACIG-0038 - so what equation, quelle est  
7 l'équation...
- 8 A. Yes, I understand the question.
- 9 Q. [16] ... zero intercept.
- 10 A. I use...
- 11 Q. [17] Well, because... Yes?
- 12 A. ... the formulation which is the one shown in Gaz  
13 Métro-1...
- 14 Q. [18] Okay.
- 15 A. ... Document 2.
- 16 Q. [19] This one.
- 17 A. Page 30.
- 18 Q. [20] Okay.
- 19 A. That's the one that I use. I did not do an  
20 exhaustive evaluation of trying to make sure I had  
21 the perfect zero intercept method because...
- 22 Q. [21] Okay.
- 23 A. ... I understand this to be a conceptual proceeding  
24 and if I'd had more time, you know, I might have  
25 looked at whether other functional forms for



1 particular regional analyses...

2 Q. [22] Okay.

3 A. ... provided a better fit. That seemed to provide a  
4 better fit and, in fact, more typically that  
5 equation does a better job, but I can't say I've  
6 done an exhaustive analysis.

7 (10 h 46)

8 Q. [23] Okay. May I invite you to put your headset  
9 back, please? Because I'll switch. O.K. Donc, vous  
10 avez utilisé, ce que je comprends c'est que vous  
11 avez utilisé l'équation qui se retrouve à la page  
12 30 du document, la pièce B... plutôt ACIG-8. Donc,  
13 prenant par contre pour acquis, Monsieur Knecht,  
14 pour les fins du tableau de votre diapositive 6,  
15 vous deviez utiliser non pas l'équation qui est à  
16 la page 30 de la pièce ACIG-8 mais plutôt  
17 l'équation que je vous ai montrée, là, qui est à la  
18 B-0112, que je pense que je devrais vous redonner,  
19 à moins que vous l'ayez en tête, là. Mais donc, si  
20 vous deviez utiliser cette... Non? Ça va. O.K. Si  
21 vous deviez utiliser cette équation-là, n'est-il  
22 pas exact, Monsieur Knecht, que les données qui se  
23 retrouvent sur l'acétate 6 concernant, bon, et  
24 relatives au Zero Intercept, là, qui sont les  
25 triangles, vous avez en bas de cent millimètres

1 (100 mm) quelques triangles qui sont regroupés là.  
2 Alors, ces données-là se retrouveraient beaucoup  
3 plus haut, là, dans votre tableau, donc, si vous  
4 deviez appliquer l'équation du docteur, suggérée  
5 par le docteur Overcast.

6 A. It's possible. It's not definite. The one thing to  
7 be clear about this table is this was separate  
8 regressions for steel and plastic, and I don't  
9 think that, that has been the approach that Gaz  
10 Métro has been using, even though that's, I think,  
11 more typical. It's not unusual for a formulation of  
12 a quadratic or of a power such as that suggested by  
13 Dr. Overcast to result in a higher access  
14 component. That can be the case, but again, as I  
15 said, the correct answer is to use the equation  
16 that fits the data the best. But I certainly  
17 haven't done the calculations.

18 Q. [24] Monsieur Knecht, vous semblez... bien, en  
19 fait, pas vous semblez, vous suggérez, selon les  
20 réponses que vous nous offrez, que la, encore une  
21 fois, la formule qui apparaît à la page 30 de la  
22 pièce C-ACIG-8 est la bonne formule. Est-ce que  
23 cette formule-là illustre bien, à votre avis, la  
24 causalité des coûts? Là je suis à la page 30 de la  
25 pièce C-ACIG-8.

1 Me GUY SARAULT:

2 Maître Plasse, je ne suis pas sûr que le témoin a  
3 nécessairement dit que c'était la bonne formule. Il  
4 dit qu'il l'utiliserait si elle s'apparie mieux  
5 avec le data.

6 Me HUGO SIGOUIN-PLASSE :

7 O.K. Parfait. D'accord. C'est beau. Je n'ai pas de  
8 problème. Reformulons puis posons peut-être la  
9 question différemment à ce moment-là.

10 Q. [25] Dans une perspective où je constate, Monsieur  
11 Knecht, que le principe fondamental pour  
12 l'allocation des coûts, que vous identifiez dans  
13 votre présentation, puis de toute façon ça... c'est  
14 en lien avec votre rapport. Donc, c'est la  
15 causalité et les coûts qui est à la base même de la  
16 question des coûts. Là-dessus on ne va pas, je  
17 crois, discuter longuement, à moins que vous me  
18 disiez que ce n'est pas le cas.

19 A. I'm going to ask you to repeat your question, but  
20 before I do, what I realized in mid-question was  
21 that I'd answered the last question incorrectly,  
22 which is why I missed the thrust of your comments.  
23 With respect to this exhibit, okay, this exhibit is  
24 not a... this is a cost allocated to the D4/D5  
25 class based on a zero intercept methodology. So, if

1 we follow what would normally happen, I used the  
2 linear equation, and that allocated a relatively  
3 low share of costs because it had a relatively...  
4 for the small mains, it's got a very small demand  
5 component for the small mains. If we replaced that  
6 linear equation with Dr. Overcast's equation and  
7 the normal thing happened, which would result in a  
8 higher access component and a lower demand  
9 component on this exhibit, in fact, the share of  
10 costs to the D-4, D-5 class would go down, and not  
11 up. So that those little triangles would be lower,  
12 and sometimes negative, if you're using the wrong  
13 functional form, because you have raised the access  
14 component up, which reduces the costs assigned to  
15 the D-4 D-5 class. That's why cost allocation gives  
16 people headaches. But in fact, it would move  
17 further away.

18 (10 h 52)

19 The reason that there's a small amount of  
20 costs in the Zero Intercept method being assigned  
21 here, is because I ran a separate steel regression,  
22 rather than using the plastic only minimum system  
23 approach that doctor Overcast used.

24 Q. [26] O.K.

25 A. So I apologize for giving an incorrect answer. But

1 in fact, what would likely happen is that cost  
2 allocated in a quadratic or in a some sort of a  
3 power to D to the two point six seven (2.67), would  
4 actually reduce the costs assigned to the D-4, D-5  
5 class. So now, if you can repeat the next question?

6 Q. [27] Merci, Monsieur Knecht, pour votre précision.  
7 Et effectivement, je vais la reformuler  
8 différemment, puisque ça ne devait pas être des  
9 plus claires, je m'en confesse. Essentiellement, ce  
10 que j'essaie de comprendre, Monsieur Knecht, entre  
11 les deux formules, les deux équations, là, donc,  
12 celle qui apparaît à la page 30 et celle qui est  
13 suggérée, donc, à la page 30 de la pièce C-ACIG-  
14 0008, et celle qui est suggérée par le docteur  
15 Overcast à B-0112. Laquelle de ces deux équations-  
16 là reflète mieux le principe de la causalité des  
17 coûts, et nous permet d'associer les coûts, une  
18 meilleure causalité des coûts?

19 A. Neither one best reflects it. It's a function of  
20 the data. And that's why I think that  
21 practitioners, you know, who use the Zero Intercept  
22 method, will consider both methods, and use the one  
23 that fits better. The object isn't to, you know,  
24 force demand to be linear, the demand-related cost  
25 to be linear in capacity. In fact, we know



1                   jurisdictions, is to treat all the  
2                   area-spanning costs as demand-related  
3                   to reflect the reality that the system  
4                   is built out primarily to serve load,  
5                   not     customer number.

6           End of the quote. And further, in his answer to  
7           question 4 by the Régie, it has been filed C-ROEEÉ-  
8           0045 at page 12, mister Chernick also wrote, and I  
9           quote:

10                   Allocating mains on usage [...]   
11                   eliminates the need to justify the   
12                   fundamentally inappropriate classification   
13                   of mains as customer-related and better   
14                   reflects cost causation.

15           I would like you, mister Knecht, do you agree with  
16           those statements and assertions of mister Chernick?

17    A. Generally, I don't. The hundred percent (100 %)   
18           demand method, from a common sense standpoint, is   
19           addressed in my opening statement. It implicitly   
20           assume that the footage of mains that is installed   
21           is not related to customer count, from a common   
22           sense standpoint, on average, you would expect that   
23           a very large industrial customer, you know, that   
24           attaching a lot of very small customers, attaching   
25           a lot of small customers is going to require more

1 footage than attaching a single large industrial  
2 customer whose overall demand level is the same,  
3 that's kind of a common sense evaluation.

4 (10 h 58)

5 In this proceeding you have, and that's the  
6 debate that takes place in these proceedings is  
7 people believe what I believe or people believe  
8 what Mr. Chernick believes, at least in this case  
9 Dr. Overcast has done some statistical analysis,  
10 some cross-sectional sometimes, serious statistical  
11 analysis which shows that at an aggregate level  
12 there is some fairly significant statistical  
13 correlation between customer count and footage of  
14 mains. And I think that, at least, goes to validate  
15 the common sense conclusion that there is a  
16 customer related component to mains cost.

17 However, in terms of developing a precise  
18 allocation for that, you know, now there isn't any  
19 way to do that other than, as I said, kind of try  
20 to look main by main and figure out which customers  
21 are served main by main. In a main by main  
22 approach, if you've got a long run of eight inch  
23 steel main that's put in place to serve a large  
24 industrial customer and there's nobody else there,  
25 I think this answers your question from yesterday,



1 Mr. Chairman: you assign that to the large  
2 industrial class. If there's a whole lower pressure  
3 distribution system that has no large industrial  
4 customers but has four inch and six inch mains, all  
5 of that should not be assigned to the large  
6 industrial class.

7 So, conceptually, I disagree with the  
8 hundred percent (100%) demand approach both from a  
9 common sense standpoint and based on the  
10 statistical analysis that Dr. Overcast presented.  
11 You know, is there a perfect solution to how big  
12 the customer component is? Not that I know of.

13 Q. [29] Okay. Now let's have a brief discussion about  
14 the Handy-Whitman Index. So I understood that you  
15 agree, put your headset back please, I'll switch in  
16 French. Il faut faire preuve d'humilité parfois.  
17 Donc, Monsieur Knecht, je comprends que vous êtes  
18 d'accord avec Gaz Métro qu'il faut faire des  
19 ajustements au niveau de l'inflation. Ce que je  
20 comprends également, par contre, c'est que vous  
21 n'êtes pas d'accord pour l'utilisation de l'indice  
22 Handy-Whitman. Quelle autre, et puis c'est là où  
23 peut-être je vais, il me manque peut-être des  
24 détails, pour moi c'est qu'est-ce que vous suggérez  
25 exactement, quel indice suggérez-vous, Monsieur,

1 indice plutôt devrais-je dire, suggérez-vous  
2 d'utiliser pour l'exercice que doit mener Gaz Métro  
3 dans le cadre de l'allocation des coûts?

4 A. Obviously, ideally, you would like an index that  
5 reflects the construction cost history in Canada  
6 for gas. You would like a Handy-Whitman Index for  
7 Gaz Métro that reflects its costs. The way I would  
8 evaluate whether or not your index is reasonable is  
9 I would look over time, from at least nineteen  
10 eighty (1980) forward, and look at, for a  
11 particular size main, are the costs, once you've  
12 deflated the costs, are the costs declining - in  
13 which case you've probably overstated cost  
14 inflation or, if the costs are going up then you've  
15 understated cost inflation. If over time you don't  
16 see either a trend increase or a trend decline,  
17 then I think you have an index that's reasonable.

18 Q. [30] Okay. Donc je comprends de votre réponse que  
19 vous dites « Bien, le meilleur des mondes, ça  
20 serait qu'on ait un indice Handy-Whitman  
21 canadien. ». Je comprends que ça n'existe pas ça,  
22 Monsieur Knecht. Est-ce exact de faire cette  
23 prétention-là ou cette affirmation-là?

24 A. I certainly did not find one.

25 Q. [31] Okay.

1 A. I don't have... I didn't conduct an extensive  
2 search, I think that would be something that the  
3 company would be, you know, would be better able to  
4 do. I did intend to try to look at the CPI which  
5 you had been using to see whether or not that would  
6 result but I wasn't sure whether you were using a  
7 particular CPI or whether I had access to it so I  
8 did not look to see whether the CPI is producing a  
9 trend increase or a trend decline in construction  
10 costs.

11 Q. [32] Okay. Just a second. So... Donc, si on  
12 retourne... Donc, si je comprends bien... Si on  
13 revient quand même et si j'insiste auprès de la  
14 Régie et que je dis : « Bien regardons l'indice  
15 Handy-Whitman pour les fins de l'exercice que nous  
16 menons, n'est-il pas exact, Monsieur, puis vous  
17 avez donc des critiques à l'égard de l'indice  
18 Jandy-Whitman, mais n'est-il pas exact, Monsieur  
19 Knecht qu'à partir des années mil neuf cent quatre-  
20 vingt (1980) il y a eu des avancées technologiques  
21 importantes qui ont été réalisées pour ce qui est  
22 de l'installation des conduites? Et que,  
23 nécessairement, par exemple, comme du forage  
24 directionnel, il y a eu... puis évidemment je ne  
25 suis pas ici pour discuter avec vous des techniques

1 bien spécifiques mais est-ce qu'on peut être  
2 d'accord, vous et moi, qu'en matière d'installation  
3 de conduites il y a eu des améliorations sensibles  
4 au point de vue technologique depuis les années  
5 quatre-vingt (80)?

6 A. I'm not a gas systems engineer or construction  
7 expert, and I don't know whether there have been  
8 material productivity improvements in the  
9 installation of steel mains. I wouldn't doubt it.  
10 Those productivity improvements would be reflected  
11 in the index, and, therefore, would show a... if,  
12 in fact, those productivity improvements took  
13 place, the Handy-Whitman Index should, in fact,  
14 show lower inflation than if you didn't have those  
15 productivity gains.

16 But those productivity gains, which might  
17 lead to declining real prices, if you use a general  
18 cost index, should be reflected in the cost index  
19 so that you saw, once adjusted for a gas mains cost  
20 index, a relatively flat level of costs across time  
21 in terms of your construction costs.

22 So, in fact, I think what we're seeing with  
23 the use of the Handy-Whitman Index is the reverse,  
24 which is that costs in the Handy-Whitman Index for  
25 steel mains have risen much faster, certainly, than

1 plastic mains. And I believe more than the CPI  
2 suggesting that, you know, there's less  
3 productivity gains in the construction of steel  
4 mains than in the economy in general, or other  
5 factors affecting costs. I mean, it may not be  
6 productivity, it may simply be inputs, steel costs,  
7 labour costs increasing faster.

8 Q. [33] Okay. Just a second. And now, maintenant je  
9 comprends, Monsieur Knecht, que vous suggérez puis  
10 je suis convaincu que vous me corrigerez si  
11 j'utilise mal ou je synthétise mal vos propos ou  
12 votre procureur le fera le cas échéant, soyez-en  
13 certain. Donc ce que vous suggérez ou ce que vous  
14 recommandez c'est d'allouer directement, le plus  
15 directement possible les coûts pour l'utilisation  
16 que les clients font des actifs, bon, de  
17 transmission par exemple. Est-ce que je suis  
18 correct d'affirmer ça?

19 A. To the extent possible, I think for all of your  
20 main systems, it's the only way I see out of this  
21 debate that results in this wide range of results  
22 from one extreme to the other is to directly assign  
23 as many costs as possible. With respect to  
24 transmission mains, yes, if you could, I would do  
25 direct assignment. Typically, transmission mains

1 are allocated on a hundred percent (100%) demand  
2 and, you know, that's the approach that's used.  
3 But theoretically, again, if, in fact, you have  
4 special circumstances where transmission mains have  
5 been extended, you know, and really serve a limited  
6 set of customers, you know, that's cost causation.  
7 And I would apply that not only to transmission  
8 mains, but to supply and distribution mains, to the  
9 extent you can with the data that are available.

10 Q. [34] O.K. Donc ayant ça à l'esprit, Monsieur  
11 Knecht, comment... comment suggèreriez-vous  
12 d'allouer les coûts dans le cas de ce qu'on a  
13 attendu d'un cas bien spécifique, d'un « farm tap  
14 », en tout cas vous avez un client qui se connecte  
15 directement sur une conduite de transmission ou  
16 d'alimentation par exemple, est-ce que... Et donc  
17 ce que je comprends c'est que les coûts pour les  
18 raccordements pour ces clients-là sont quand même  
19 assez élevés, parce que vous avez des équipements  
20 où vous devez réduire la pression substantiellement  
21 et là, comment on traiterait, en termes  
22 d'allocation de coût, ces situations-là,  
23 considérant le principe que vous nous suggérez,  
24 c'est-à-dire d'assigner directement des coûts,  
25 plutôt que d'assigner directement des coûts, mais

1           plutôt de faire de l'allocation directe. Est-ce  
2           qu'on devrait, à ce moment-là, pour ces clients-là,  
3           faire des... Quel type de... Comment ça se  
4           traduirait, concrètement, pour ces « farm tap »-là?

5           A. You assign the farm tap to the customer.

6           Q. [35] Okay.

7           A. The equipment in there, for anything other than  
8           transmission costs, which we just talked about, but  
9           then, all of the costs, you know, of the  
10          transmission line are associated with that  
11          customer. It doesn't mean you recover all the cost  
12          from that customer. It just means that from a cost  
13          allocation standpoint, you allocate the cost to  
14          that customer. I don't know what to say. The costs  
15          are only used for that customer. The, you know, the  
16          company has done it, because that approach would be  
17          less expensive than some other approach. But  
18          nevertheless, the costs are related to that  
19          customer.

20          Q. [36] Parfait. Monsieur le Président, ça complète  
21          mon contre-interrogatoire. Merci.

22          LE PRÉSIDENT :

23          Merci Maître Sigouin-Plasse. Alors, le prochain sur  
24          la liste, c'est maître Gertler qui se dirige  
25          allégrement vers le micro.

1 Me FRANKLIN S. GERTLER :

2 Monsieur le Président, je me demande si vous me  
3 donneriez comme cinq minutes, juste parce qu'on m'a  
4 envoyé certains commentaires par courriel, sur un  
5 document. Mais je voulais juste avoir la chance de  
6 consulter mon monde, là, durant, pendant cinq  
7 minutes. À moins qu'il y a un autre procureur qui  
8 veut le passer avant nous.

9 LE PRÉSIDENT :

10 Oui. Effectivement, je peux voir s'il y en a  
11 d'autres qui...

12 Me FRANKLIN S. GERTLER :

13 Si non, bien, on va y aller.

14 LE PRÉSIDENT :

15 Est-ce que Maître Neuman? Pas de question. Maître  
16 Sicard?

17 Me HÉLÈNE SICARD :

18 (Micro fermé).

19 Me FRANKLIN S. GERTLER :

20 On va y aller si vous...

21 LE PRÉSIDENT :

22 À maître Gertler. O.K. Mais on peut prendre une  
23 pause de cinq minutes, Maître Gertler. Il n'y a pas  
24 de problème. Vous prévoyez combien de temps?

25



1 Me FRANKLIN S. GERTLER :

2 Ça ne sera pas long.

3 LE PRÉSIDENT :

4 O.K. Bien on va prendre une petite pause de...

5 Cinq, c'est correct? Dix? Dix minutes.

6 SUSPENSION DE L'AUDIENCE

7 REPRISE DE L'AUDIENCE

8

9 LE PRÉSIDENT :

10 Maître Gertler?

11 Me FRANKLIN S. GERTLER :

12 Oui. Merci Monsieur le Président.

13 LE PRÉSIDENT :

14 Je vous en prie.

15 CONTRE-INTERROGÉ PAR Me FRANKLIN S. GERTLER :

16 Q. [37] Alors Franklin Gertler, pour la ROEÉ. Et nous  
17 avons juste quelques questions. Puisqu'on avait  
18 annoncé quarante minutes (40 min), on va finir par  
19 sauver un peu de temps. Mister Knecht, you can take  
20 off your Mickey Mouse ears, and we'll be able to do  
21 this...

22 A. Thank you sir.

23 Q. [38] ... in English. So I'm going to be referring  
24 you to your PowerPoint presentation this morning,  
25 and to the evidence of Mister Chernick, which is,

1 so your PowerPoint presentation, which is C-ACIG-  
2 0038, and the evidence, written evidence, direct  
3 expert evidence of mister Paul Chernick, which is  
4 C-ROEÉ-0040. I think you said 39, somebody said 39.  
5 But in fact, there was a mistake in the exhibit  
6 when it was filed, as to the designation of which  
7 case it was in. We had the wrong case name on it.  
8 So we would file, I think, a new one, which is  
9 identical. And I think that's the one that's to be  
10 used here is 0040.

11 So I'd like you to go to your slide number  
12 6 please, in your PowerPoint presentation 0038. And  
13 you referred the Board to your squares, your blue  
14 squares that you plotted, which you say are from  
15 mister Chernick's evidence, ROEÉ table 4 and which,  
16 I guess, I don't know what the average would be,  
17 but it shows about a sixty percent (60 %)  
18 allocation of steel mains cost to D-4 and D-5. So I  
19 look at that, you know, we're perplexed at that  
20 number and I want to refer you to Mr. Chernick's  
21 table 4 which is found at page 22 of his evidence  
22 C-ROEÉ-0040 and I'm wondering whether you can tell  
23 us how you derived the numbers that you used in  
24 your graph.

25 (11 h 25)

1 A. Let me try and I've done my best to try to  
2 interpret Mr. Chernick's evidence and I realise  
3 that he was following me on this and would have a  
4 chance to respond and certainly hope I got the  
5 numbers right, my track record in this case hasn't  
6 been great.

7 Q. [39] If you want to say so.

8 A. In terms of running the numbers it was a hasty  
9 preparation of evidence. But let me try an example.  
10 If we look at table 4 and we look at the steel  
11 mains and let's look at a hundred and sixty-eight  
12 point three (168.3).

13 Q. [40] Okay. Right in the...

14 A. A hundred and sixty-eight point three (168.3)  
15 millimetre mains and the access related costs that  
16 Mr. Chernick shows is about three point three  
17 million (3.3 million) out of three hundred and  
18 thirty-eight million (338 million) so it's one  
19 percent (1%), quite a small number.

20 So what that means is for the hundred and  
21 sixty-eight point three (1.63) millimetre mains the  
22 vast majority, ninety-nine percent (99%) of the  
23 costs for that main are being allocated based on  
24 demand. Okay?

25 Now, the demand allocator, as I understand

1 from Mr. Chernick's evidence starting at the bottom  
2 of page 25 and extending onto page 26 is that the  
3 allocator that he would use for the demand  
4 component of costs would be adjusted for the load  
5 carrying capability of the minimum system and that  
6 he agreed with the company that you would take out  
7 all of the demand for customers who used thirty-six  
8 five hundred cubic metres (36,500 m<sup>3</sup>) per year from  
9 the demand allocator and you would then take out a  
10 percentage of some of the demand in some of the  
11 other classes.

12 In applying those adjustments to the  
13 company's CA, its design demand allocator, it  
14 looked to me like that took out about nineteen  
15 percent (19%) of the cost so that you've now  
16 reduced, you've taken a chunk out of the demand  
17 allocator because those costs are not, you know,  
18 none of those demand costs are being assigned to  
19 the small customers. So, for example, if we look at  
20 our hundred and sixty-eight point three (168.3)  
21 millimetre main, there's only one percent (1%) of  
22 the costs that are access related so those are the  
23 only costs that are being assigned to the small  
24 customers.

25 So what that means is the D-4, D-5 share of

1 what's left in the CA allocator, after taking these  
2 costs out, is now twenty-five percent (25%) higher  
3 than before the adjustment was made, than their  
4 share of overall CA so that, because you've taken  
5 those demand costs out, the D-4, D-5 share is  
6 bigger than its share of CA because it's the same  
7 amount as a percentage of a smaller overall number  
8 and that markup is essentially what you see on that  
9 graph in the hundred and sixty-eight point three  
10 (168.3) category, it says instead of it being  
11 fifty-four percent (54%), it's now up there in the  
12 sixty-seven percent (67%) range and it's exactly  
13 that markup related to taking the demand out.

14 Q. [41] So you did the calculations all across or this  
15 is...

16 A. Yes, I did that for all of the steel mains. I  
17 actually did it for plastic as well but did not  
18 present it so...

19 Q. [42] So this is steel only?  
20 (11 h 10)

21 A. This is steel only, yes. To be honest, in the  
22 company's method and in the zero intercept method,  
23 there's a significant difference between steel and  
24 plastic. In Mr. Chernick's method, I think he  
25 treats steel and plastic mains the same, so that

1 the squares would look the same for the same-size  
2 pipe in plastic.

3 Q. [43] I'm wondering, Mr... you've given us a general  
4 method, but Mr. Chernick's Table No. 4 doesn't  
5 include percentages, and there's several steps or  
6 assumptions, it seems to me, you've laid out. I'm  
7 wondering whether, as undertaking, you could  
8 provide us with the calculations and the method you  
9 had for deriving this.

10 A. I would be happy to give you my Excel file.

11 Q. [44] Okay. So that would be undertaking number 10  
12 then.

13 LE PRÉSIDENT:

14 Veuillez le formuler de façon...

15 Me FRANKLIN S. GERTLER:

16 Oh, okay, sorry. The witness did such a  
17 good job. The undertaking then is to provide the  
18 calculations for the derivation of Mr. Knecht's  
19 table that appears at page 6, or slide 6, of his  
20 PowerPoint presentation this morning, which is C-  
21 ACIG-0038. And I think, what I understand from the  
22 undertaking, it's going to be the whole of the  
23 Excel file for the derivation of the table.

24 A. Yes, the file will also have the backup  
25 calculations for the prior page, so... that one.

1 Q. [45] I suppose you mean derivation from Table 4 of  
2 Mr. Chernick's report.

3 A. Yes. Yes, it will have the derivation of all of the  
4 points on this exhibit.

5 Q. [46] Not just Mr. Chernick's...

6 A. Not just Mr. Chernick's.

7 Q. [47] ... it's the whole... that's what I  
8 understood.

9 A. It will have the exhibit as well.

10 Q. [48] Perfect. Okay, thank you. That will be very  
11 helpful.

12 I just have one (1) other line of  
13 questioning, very briefly.

14 LE PRÉSIDENT:

15 Q. [49] Mr. Knecht, I understand that you would  
16 provide the Excel file.

17 A. Yes.

18 Q. [50] When?

19 A. I think as soon as we conclude.

20 Q. [51] Okay.

21 A. I have it, it's just a matter of electronically  
22 copying it.

23 Q. [52] Okay.

24 A. So it's... it will be today.

25 Q. [53] Okay.

1 A. It will be when we're done.

2 Q. [54] Thank you.

3 A. What's the... well, what is the procedure for that?

4 Who should I give it to?

5

6 U-10 (ACIG) To provide calculations for the  
7 derivation of Mr. Knecht's table that  
8 appears at slide 6 of his Power Point  
9 presentation (demandé par le ROÉÉ)

10

11 Q. [55] You'll provide it, I think, to your attorney,  
12 and then he'll, no doubt, provide it to the Board  
13 and to us. I don't know whether there's any  
14 explanation required with that, but, obviously, if  
15 you want to define any terms or anything, that  
16 would be helpful.

17

18 Now, Mr. Knecht, just one other topic.  
19 Regarding what you call regional analysis, if I  
20 understand, and tell me if I'm wrong, but if I got  
21 it right, what you said this morning, you seem to  
22 suggest that for a class that has most of its  
23 members in a high-cost area, rocky, or whatever it  
24 may be, should be allocated more dollars per  
25 kilometre of main than a class which uses the same  
size of mains; another class, but in a lower-cost



1 area. Is that a fair statement?

2 A. Yes. I guess the only distinction I would make is  
3 we haven't decided what classes are, but... so the  
4 customers who are in a more expensive place get  
5 assigned more costs than customers in a less  
6 expensive place.

7 Q. [56] And would you agree with me that that could  
8 then result in two customers taking similar service  
9 in different areas being charged different rates  
10 just because of the mix of locations in their  
11 class?

12 A. By itself, no, because all we're doing is  
13 allocating costs. We've simply said there's a, you  
14 know, there's a medium-size industrial customer  
15 that costs "X" in one place, and the same customer  
16 with the same load pattern in a different place  
17 costs "Y". That doesn't mean we necessarily charge  
18 the first customer "X" and charge the second  
19 customer "Y". What it means is we've allocated  
20 costs to the first customer "X", and we've  
21 allocated costs "Y". Rate design is the next stage.  
22 And the more you try to presuppose what the rate  
23 design is going to be, you know, the more you can  
24 depart from strict application of costs. I think my  
25 philosophy is assign the costs, and worry about the

1 rate stuff in the rate phase.

2 (11 h 35)

3 Q. [57] Okay. That's it. I don't think I have any  
4 other questions. Merci beaucoup Monsieur le  
5 Président. Ça a été court. Merci.

6 LE PRÉSIDENT :

7 Merci Maître Gertler.

8 Me FRANKLIN S. GERTLER :

9 Thank you Mr. Knecht.

10 LE PRÉSIDENT :

11 Donc, si je comprends bien, nous sommes rendus aux  
12 questions de la Régie. Maître Cardinal?

13 INTERROGÉ PAR Me AMÉLIE CARDINAL :

14 Q. [58] Bonjour Monsieur Knecht. Bonjour. Je vais vous  
15 référer tout d'abord à la pièce Gaz Métro-3  
16 Document 1, à la page 18, qui est la réponse à la  
17 question 6.5, et la cote Régie, c'est le B-0045.

18 A. I'm sorry. I brought a set of exhibits, but I don't  
19 have an exhaustive set...

20 Q. [59] Oh.

21 A. ... of...

22 Q. [60] Okay.

23 Me GUY SARAULT :

24 You...

25 A. No.

- 1 Me AMÉLIE CARDINAL :
- 2 Q. [61] Peut-être que votre procureur peut vous le  
3 fournir, ou... Oui. Je vais... Je pense que je vais  
4 le lire. Et peut-être qu'avec la traduction...
- 5 Me GUY SARAULT :
- 6 À quelle page?
- 7 Me AMÉLIE CARDINAL :
- 8 C'est à la page 18. Donc, je vais lire la partie.
- 9 A. No. I'm sorry. Hold on...
- 10 Q. [62] Yes. That's okay.
- 11 A. ... just a minute, for I believe I have these  
12 responses on my computer. But let me see.
- 13 Q. [63] Oui.
- 14 A. Okay. I believe I have the response in English to,  
15 this is Gaz Métro-3 Document 1, item 6.4.
- 16 Q. [64] 6.5.
- 17 A. 6.5. Okay. Well, I'm close. Okay. I have the  
18 reference.
- 19 Q. [65] You don't have it?
- 20 A. I have the reference.
- 21 Q. [66] Ah. Parfait. Donc, je vais lire ce qui nous  
22 intéresse. Ce n'est pas énorme; c'est à peine deux  
23 lignes. Donc, j'imagine, avec la traduction  
24 simultanée, on va être capable de s'organiser un  
25 peu. D'accord. Donc, je vais y aller lentement.

1           Donc, à la réponse, Gaz Métro dit que, bon :

2                           ... on note que Gaz Métro serait au  
3                           15e rang (sur 21) pour le nombre de  
4                           clients par kilomètre et au 1er rang  
5                           (sur 18) pour le volume consommé par  
6                           kilomètre de conduites.

7           Ensuite, on dit que :

8                           Le rapport entre le volume consommé  
9                           sur nombre de kilomètres de conduites  
10                          serait le plus élevé de l'échantillon  
11                          et le nombre de clients par kilomètre  
12                          de conduites serait en queue de  
13                          peloton illustre cette réalité : les  
14                          clients consommeraient en moyenne  
15                          davantage.

16           Ensuite, je vais vous référer à la pièce Gaz Métro-  
17           1 Document 1, à la page 11, qui est le rapport  
18           d'expert de Gaz Métro. La cote Régie, c'est le  
19           B-0005.

20           Me GUY SARAULT :

21           Page 11?

22           Me AMÉLIE CARDINAL :

23           Page 11. C'est ça. Dans le premier paragraphe, je  
24           vais vous référer, là, vers la fin du premier  
25           tiers, où on peut lire que :

1                   Less than one percent of residential  
2                   customers served by Gaz Metro use more  
3                   than 10,950 m(3) and none use more  
4                   than 36,500 m(3).

5           Considérez-vous qu'il est raisonnable d'allouer la  
6           composante axé sur le nombre de clients ou le  
7           nombre de branchements étant donné que le réseau de  
8           Gaz Métro est un réseau faiblement densifié, mais  
9           que le volume consommé par kilomètre est le plus  
10          élevé du groupe des comparables.

11        A. I don't address that particular issue in my  
12        evidence. I understand Gaz Métro's rationale for  
13        wanting to use the number of attachments rather  
14        than the number of customers, in that I  
15        conceptually, without doing any kind of a detailed  
16        analysis, I think a common sense interpretation  
17        would be that the distance related component of  
18        mains costs is more related moving from one service  
19        line to the next than moving one customer to the  
20        next, when you have a whole set of aggregate  
21        customers.

22                   The thing, I think, and this gets you into  
23                   one of the problems with the Minimum System Method,  
24                   is now, if you've got one service line serving ten  
25                   (10) residential customers, the demand for that

1 service line is greater than the load-carrying  
2 capability of the minimum system, might be greater  
3 than the... ten (10) would not be enough, but if  
4 you had some larger customers mixed in on that  
5 service line, there might be a demand-related  
6 component of costs there.

7 But I guess my answer is, conceptually --  
8 and not related to the fact that there's more or  
9 lower percentage of industrial customers on the  
10 system -- conceptually, I think for any gas  
11 distribution system, what Ghauts Métro proposes has  
12 common sense appeal.

13 (11 h 48)

14 Q. [67] En tenant compte du faible niveau de  
15 densification en nombre de clients par kilomètre de  
16 conduite... Je recommence, ça va être plus simple.  
17 En tenant compte du faible niveau de densification  
18 en nombre de clients par kilomètre de conduite, en  
19 fait, et aussi que le nombre de mètres cubes par  
20 kilomètre de conduite est faible, est élevé,  
21 désolée, considérez-vous approprié de déterminer  
22 une composante accès?

23 A. If it is not possible for data reasons to develop a  
24 detailed assessment line by line and piece by piece  
25 for allocation, then I think we are in a world

1 where you need to reflect cost causation in some  
2 form of generic fashion which reflects both the  
3 cost of making the pipes bigger to serve the  
4 overall load and to extend the system to  
5 interconnect all of the customers.

6 Conceptually and from a common sense  
7 standpoint, regardless of the fact that there's a  
8 relatively low customer density on the system, it  
9 still means that there is a customer component.  
10 Conceptually there is a customer component of costs  
11 related to the extra length of mains that need to  
12 be installed to attach all the customers and  
13 there's a demand related cost. So the answer to  
14 your question is: if we're using a generic method,  
15 yes, I believe there should be an access component.

16 Q. [68] Au moment d'analyser les propositions de Gaz  
17 Métro par rapport à la proposition de changement  
18 d'approche, c'est-à-dire de régional versus global,  
19 ainsi que le changement de méthode, soit intercepte  
20 zéro versus réseau minimal, avez-vous tenu compte  
21 des particularités du réseau de Gaz Métro dans  
22 votre analyse, c'est-à-dire la présence de réseaux  
23 régionaux, le développement historique du réseau,  
24 l'extension du réseau effectuée en fonction de  
25 projets d'investissement industriel?

1 A. I did not do a detailed evaluation of the whole  
2 history of the development of the system. In terms  
3 of cost allocation, I have significant reservations  
4 about allocating costs based on the history of how  
5 the system was developed because then you start  
6 getting yourself into a world where "Oh, this  
7 customer came on first, he's using that old steel  
8 main. We shouldn't charge him very much at all, he  
9 should be getting lower rates and the new customers  
10 who've come on later and are using, you know, the  
11 more expensive smaller, perhaps smaller mains as  
12 the system gets filled out, we should charge them  
13 more."

14 From a cost allocation standpoint, we can  
15 only allocate costs to the customers who are using  
16 the system now unless you are going to adopt some  
17 sort of extraordinary method by which costs are  
18 deferred to apply them to future customers. In  
19 general, a cost allocation study has to allocate  
20 the revenue requirement and it has to allocate the  
21 revenue requirement to the customers who are on the  
22 system at the time that you're running the cost  
23 allocation study. So the key aspect to allocating  
24 the costs is, you know, not who came on first but  
25 who's using the system now because that's all you



1 can allocate the costs to.

2 Q. [69] Considérez-vous raisonnable d'établir le seuil  
3 du réseau minimal à trente-six mille cinq cents  
4 mètres cubes (36 500 m<sup>3</sup>) de consommation annuelle  
5 par client étant donné la faible densification, la  
6 structure du réseau puis le fait qu'il y a  
7 seulement un pour cent (1 %) des clients  
8 résidentiels qui consomme plus que dix mille neuf  
9 cent cinquante mètres cubes (10 950 m<sup>3</sup>) par année?

10 A. Let me try to answer. I'm not sure I understood the  
11 question. The thirty-six five hundred cubic metres  
12 (36,500 m<sup>3</sup>) that Dr. Overcast uses is what he deems  
13 to be the load carrying capability of the minimum  
14 system. As I explained in my opening statement,  
15 while think that's true for the local aspects of  
16 the distribution system, I don't think that the  
17 theoretical minimum system that's used in the  
18 minimum system method could serve all of the  
19 customers up to thirty-six five hundred cubic  
20 meters (36,500 cu m). I mean, just looking at the  
21 reference you gave me in Dr. Overcast's report, you  
22 know, he says that the minimum system for one  
23 kilometre (1 km) of two-inch (2") plastic pipe can  
24 serve sixty-five thousand four hundred and eighty-  
25 one cubic meters (65,481 cu m). Well, that's only

1 two (2) of the biggest customers within thirty-six  
2 five hundred (36,500).

3 (11 h 53)

4 So, you know, it's a minimum system method  
5 and he's trying to adjust it for the load carrying  
6 capability of the minimum system that can't be done  
7 perfectly, it can only kind of be done as an  
8 average... an averaging exercise. And he's picked a  
9 number that I think is at least roughly consistent  
10 with the average density on the system. Do I think  
11 this is a perfect number? No, there are no perfect  
12 answers for this particular problem. Is it in the  
13 range of, you know, how this kind of a method would  
14 be applied? Yes.

15 Q. [70] Je vais vous référer maintenant à votre preuve  
16 à la page 22. Aux lignes 25 et 26, vous recommandez  
17 de retenir le test du stand-alone. Pourriez-vous...  
18 est-ce que vous êtes à la bonne... au bon endroit?

19 A. 22?

20 Q. [71] 25 et 26 de la page 22. Non.

21 A. I'm sorry, on page 22 I have meters cost  
22 allocation.

23 LE PRÉSIDENT :

24 Q. [72] Yes, it's not the right page.

25 A. Okay, sorry.

1 Q. [73] We're searching for it.

2 A. I think page 2.

3 Me AMÉLIE CARDINAL :

4 Q. [74] Yes, right, it's page 2.

5 A. Okay, here we go.

6 Q. [75] We just found it, okay. Donc, vous recommandez  
7 l'utilisation du stand-alone. Pouvez-vous commenter  
8 sur votre proposition de retenir ce test dans un  
9 contexte où les coûts marginaux sont supérieurs aux  
10 coûts moyens?

11 A. The stand-alone cost test and the incremental cost  
12 test are two different tests, so your taking into  
13 account doesn't help me any. The stand-alone cost  
14 test is that you shouldn't assign costs to any  
15 particular customer that exceed what it would cost  
16 that customer to interconnect to... interconnect  
17 outside of the system on his own. We see this a lot  
18 in the United States, where you have bypass rates,  
19 where customers are legally able to bypass the  
20 distribution system. So they may be a customer in a  
21 gas utility service area, but they don't have to  
22 take service from the distribution utility, and  
23 could go directly to the interstate pipeline and  
24 interconnect directly.

25 And in that kind of a case, you can see the

1 practical implications of a stand-alone cost test,  
2 because if you set the rates for that customer  
3 above the stand-alone cost, that customer will  
4 leave the system and you will lose the revenue  
5 associated with that customer.

6 (12 h 00)

7 So, conceptually, the idea of the stand-  
8 alone cost test is you are creating an economic  
9 cross-subsidy if you are charging rates for a  
10 particular customer that exceed the stand alone  
11 cost of service. Therefore, from a cost allocation  
12 standpoint, I think you should apply that principle  
13 as well, to apply the rates. The costs allocated to  
14 that customer should not exceed the costs  
15 associated with that customer interconnecting on  
16 its own. I think this leads more toward the basic  
17 philosophy I have that where possible, you directly  
18 assign the costs needed to serve a particular  
19 customer, rather than use an arbitrary allocation  
20 method. When you use an arbitrary allocation  
21 method, it is more likely that you will result in  
22 costs being allocated particularly, again,  
23 particularly to larger industrial customers, where  
24 each circumstance is different.

25 When you use a generic cost allocation

1 methodology, you are, it is more likely that your  
2 result, there's greater potential for allocating  
3 costs in excess of stand alone costs. So I think  
4 the point here wherever possible, directly assign  
5 the costs.

6 Q. [76] Je vous invite à reprendre le rapport de  
7 monsieur Overcast, à la page 12, cette fois-ci. La  
8 cote Régie, c'est le B-0005. Et je répète la cote  
9 Gaz Métro : c'est Gaz Métro-1 Document 1. Donc, on  
10 voit dans le paragraphe qui s'intitule « Common  
11 Critiques of the Minimum System Method », vers le  
12 milieu du paragraphe...

13 Me GUY SARAULT :

14 Premier?

15 Q. [77] Oui. Du premier paragraphe. On voit :

16 Among those who oppose the method,  
17 some argue that smaller customers get  
18 no benefit from the economies of scale  
19 under this method

20 Est-ce qu'à votre avis, dans une approche réseau de  
21 taille minimale ou Intercepte Zéro, les économies  
22 d'échelle sont captées uniquement dans la  
23 composante capacité, et qu'en conséquence, les  
24 petits consommateurs ne bénéficient pas des  
25 économies d'échelle inhérentes à un réseau de

1 distribution de gaz?

2 A. I think you're asking whether I agree with doctor  
3 Overcast conclusion in this paragraph. And I think  
4 conceptually he and I take a little bit of a  
5 different approach on thinking this through,  
6 perhaps coming to the same answer, but through  
7 different means.

8 First, you have to remember that there's  
9 the minimum system method unadjusted, and the  
10 minimum system method adjusted. And those two, as I  
11 think I should, for large industrial customers, but  
12 for all customer classes, can have pretty  
13 significantly different results.

14 With respect, and I assume in this  
15 paragraph that doctor Overcast is referring to his  
16 adjusted method, where in the demand allocator for  
17 the small customers is adjusted down, in theory to  
18 reflect the load carrying capability of the minimum  
19 system.

20 If you believe that the minimum system as  
21 defined by doctor Overcast can serve every single  
22 small customer on the system, you know I don't  
23 believe that, but if you believe that at least the  
24 vast majority of the economies of scale are being  
25 assigned, effectively being assigned to the larger

1 customers.

2 (12 h 05)

3           However, to the extent that the minimal  
4 system is not capable of serving all of the  
5 customers, or all of the smaller customers in  
6 total, then I think that the smaller customers are  
7 implicitly sharing in the economies of scale within  
8 this method because the minimum system can't serve  
9 all of them. I hope that answers your question.

10 Q. [78] Oui, merci. Thank you. Je vous réfère à la  
11 pièce Gaz Métro-3, Document 11. La cote Régie c'est  
12 le B-0097, vous ne l'avez pas?

13 A. I'm sorry, I don't have that.

14 Me AMÉLIE CARDINAL :

15 Maître Sarault, peut-être que...

16 Me GUY SARAULT :

17 Je l'ai sur mon ordinateur.

18 Me AMÉLIE CARDINAL :

19 Vous l'avez?

20 Me GUY SARAULT :

21 Mais je ne l'ai pas en copie papier.

22 Me AMÉLIE CARDINAL :

23 En copie papier?

24 Me GUY SARAULT :

25 J'en ai apporté mais pas toutes.

1 Me AMÉLIE CARDINAL :

2 Oui, c'est ça. Pouvez-vous m'attendre juste un  
3 instant. Je regarde si on a une copie qui ne serait  
4 pas annotée. C'est la page 17.

5 Me GUY SARAULT :

6 Do you have it on your computer?

7 Me AMÉLIE CARDINAL :

8 Donc on en a trouvé une copie.

9 Me GUY SARAULT :

10 Ça va, je peux vous suivre avec mon ordinateur.

11 Me AMÉLIE CARDINAL :

12 Q. [79] D'accord. Donc ce à quoi je réfère c'est une  
13 réponse à une demande de renseignements puis, en  
14 fait, j'attire votre attention à la question 6.2.

15 Me GUY SARAULT :

16 C'est à quelle page?

17 Me AMÉLIE CARDINAL :

18 Q. [80] Page 17. Est-ce que vous voulez que je lise la  
19 question comme telle pour qu'elle vous soit  
20 traduite?

21 A. Yes, please.

22 Q. [81] Oui? Pas de problème. On demandait :

23 Pour chacune des régions et tenant  
24 compte des niveaux de densification  
25 spécifiques à celles-ci, veuillez





1       chacun des clients, indépendamment de leur  
2       consommation se verrait allouer une capacité  
3       annuelle de cent soixante-trois mille sept cent  
4       trois (163 703) mètres cube par année. Considérez-  
5       vous ce résultat comme étant raisonnable?

6       (12 h 10)

7       A. I'm sorry. I did not review this interrogatory, at  
8       least not recently, and I'm not exactly sure what  
9       it's telling me. So I think the answer to your  
10      question is no, I can't comment on it. I'm not...  
11      I'm just not sure I understand it. I could  
12      undertake to look into it and try to develop an  
13      understanding of it, with a little more context and  
14      respond. But I think sitting here, I would be  
15      speculating.

16      Q. [82] Okay. Okay. Thank you. Donc, ma dernière  
17      question, c'est : pouvez-vous nous donner votre  
18      avis sur le traitement d'épuration de la banque de  
19      données comptable qui est effectuée par Gaz Métro?

20      A. One of the good things about being the economist is  
21      someone else compiles the data for you, in these  
22      kinds of proceedings. And we rely on the  
23      accountants and engineers. It really isn't my area  
24      of expertise. I think that Gaz Métro made a very  
25      good faith effort to clean the data. I understand

1 the problems that they're operating under. And, as  
2 much as I understand it, I think, you know, they've  
3 done a responsible job.

4 At the end of the day, that's what we've  
5 got. It is the only data that we can rely on. I  
6 think the Régie is correct to make sure, it  
7 understands the process, and that it agrees that  
8 the process for A) taking the accounting data and  
9 the engineering data, and translating it into a  
10 database to be used, is reasonable, and B) the  
11 process for excluding the outliers is reasonable.  
12 It think both of those steps are important.

13 I have not reviewed the details of the  
14 process at any level, but I think both of them are  
15 important. And, you know, my perspective is that  
16 they've, you know, they did a good... they made a  
17 good faith effort to develop data to be used. I  
18 would not, I think, disagree in any substantive way  
19 with Dr. Overcast's comments on this topic, that he  
20 made yesterday afternoon.

21 Q. [83] Okay. Thank you. That was my last question.

22 Merci.

23 LE PRÉSIDENT :

24 Merci Maître Cardinal. Alors on va prendre

25 évidemment la pause lunch. La Régie aura quelques

1 questions pour vous, Monsieur Knecht, mais vous  
2 devrez attendre après le lunch. Et de toute  
3 évidence, Maître Gertler, nous entendrons votre  
4 témoin après les questions de la Régie à monsieur  
5 Knecht. Donc, vous serez prêt?

6 Me FRANKLIN S. GERTLER :

7 Oui. Oui. On va être prêt, Monsieur le Président.  
8 Franklin Gertler, pour la ROEE. Alors juste un  
9 petit peu d'impression à faire, mais je compte bien  
10 être capable de le faire sur l'heure du midi, pour  
11 la version finale...

12 LE PRÉSIDENT :

13 O.K.

14 Me FRANKLIN S. GERTLER :

15 ... le PowerPoint. La seule chose que je  
16 demanderais, là, je ne sais pas, si pour que  
17 monsieur Chernick puisse faire de manière  
18 intelligente son témoignage, ce serait très utile  
19 d'avoir la copie ou le fichier Excel qui est  
20 l'engagement numéro 10, je crois. Je ne sais pas si  
21 cela serait possible.

22 LE PRÉSIDENT :

23 Maître Sarault, j'ai compris de monsieur Knecht que  
24 ça ne serait pas compliqué. Donc...

25 Me GUY SARAULT:

1 Well, I mean, can you send it to me by email, and I  
2 could file it electronically with the Régie, on the  
3 electronic filing system?

4 Mr. ROBERT D. KNECHT:

5 I might physically bring the disk to you and hand  
6 it to you, as opposed to emailing it.

7 Me GUY SARAULT:

8 Okay.

9 Mr. ROBERT D. KNECHT:

10 But I think we can do it. Yes.

11 Me GUY SARAULT:

12 Is it that large?

13 Mr. ROBERT D. KNECHT:

14 No. No. No. No. It's just that will be faster than  
15 retrying to access the Internet here. Sometimes,  
16 it's the connection is spotty here. So it's...

17 (12 h 15)

18 LE PRÉSIDENT :

19 À tout le moins, Maître Gertler, je suis certain  
20 que même si le dépôt dans SDÉ peut être plus  
21 compliqué, à tout le moins, vous pouvez en avoir  
22 une copie directement de monsieur Knecht. On va le  
23 déposer SDÉA aussi, là, bien sûr.

24 Me GUY SARAULT :

25 On va le déposer au SDÉ.

1 Me HUGO SIGOUIN-PLASSE :

2 Je voulais seulement m'assurer qu'on ait tous les

3 copies, Monsieur le Président.

4 LE PRÉSIDENT :

5 Absolument.

6 Me GUY SARAULT :

7 Quand on vous donnait le disque à vous, est-ce que

8 vous pourriez... Madame la Greffière, si on vous

9 donnait le disque à vous, est-ce qu'il serait

10 possible... papier ou électronique ou les deux.

11 Me FRANKLIN S. GERTLER :

12 Je crois... Maître Gertler; je pense que c'est bon

13 le papier mais pour être capable de travailler, je

14 pense que l'expert, monsieur Chernick, va avoir

15 besoin du fichier « live », comme on dirait, en bon

16 québécois.

17 Me GUY SARAULT:

18 Can we do this now? Is it a long process from your

19 perspective?

20 Mr. ROBERT D. Knecht:

21 Yes.

22 Me GUY SARAULT :

23 Ça peut-tu aller après le lunch?

24 LE PRÉSIDENT :

25 Regardez, on va prendre une pause jusqu'à une heure

1 et demie (1 h 30); à une heure (1 h), le greffe est  
2 accessible, donc il y a des gens qui peuvent vous  
3 aider pour déposer les dossiers de la meilleure  
4 façon, Madame la Greffière, c'est... Donc, on va  
5 reprendre à une heure et demie (1 h 30) puis, d'ici  
6 une heure et demie (1 h 30)...

7 Me GUY SARAULT :

8 Alors, à une heure (1 h)... bien, là on va luncher.

9 LE PRÉSIDENT :

10 À treize heures (13 h), adressez-vous au greffe  
11 directement, maître Dubois ou les gens qui sont là,  
12 au greffe...

13 Me GUY SARAULT :

14 Ce que je vais faire, je vais apporter mon  
15 ordinateur puis je vais le déposer à partir de mon  
16 ordi dans le SDÉ.

17 LE PRÉSIDENT :

18 Oui, je crois que c'est la bonne façon.

19 Me FRANKLIN S. GERTLER :

20 And if Mr. Knecht wants to give it to us in a more  
21 direct fashion, that would be wonderful. I'm not  
22 sure, I followed exactly what the process is going  
23 to be here, but, O.K., thank you.

24 LE PRÉSIDENT :

25 C'est bon. Donc, à une heure trente (1 h 30).

1           Merci.

2           SUSPENSION DE L'AUDIENCE

3           REPRISE DE L'AUDIENCE

4

5           (13 h 30)

6           LE PRÉSIDENT :

7           Rebonjour à tous. Alors, Maître Sarault, je vois  
8           que vous avez réussi à déposer les pièces, oui. Ça  
9           a bien fonctionné.

10          INTERROGÉ PAR LA FORMATION :

11          LE PRÉSIDENT :

12          Q. [84] Alors, Monsieur Knecht, j'ai quelques  
13          questions pour vous. Je vais tenter de reprendre la  
14          question... la dernière question de maître Cardinal  
15          tantôt. Le niveau de densification du réseau de Gaz  
16          Métro est à peu près de vingt et un (21) clients  
17          par kilomètre. Les calculs qui ont été faits, et  
18          qui vous ont été présentés ce matin, puis vous  
19          l'avez noté vous-même, avec un taux de  
20          densification de vingt (20) clients par kilomètre,  
21          le réseau de taille minimale proposé par Gaz Métro  
22          laisse ou conduit à allouer une consommation  
23          d'environ soixante-cinq mille mètres cubes (65 000  
24          m3) par année à chaque client. Vous avez vu ça dans  
25          la Gaz Métro-1, document 1. Vous l'avez noté vous-



1 même tantôt. Vous le savez, le réseau de Gaz Métro  
2 est composé de différents réseaux régionaux ou,  
3 enfin, on peut le décomposer en différents réseaux  
4 régionaux. Certains de ces réseaux-là ont des taux  
5 de densification de huit (8) clients par kilomètre  
6 de conduites. Ce qui fait que ces clients-là se  
7 voient allouer cent soixante-trois mille mètres  
8 cubes (163 000 m<sup>3</sup>) par année. Vous avez vous-même,  
9 tantôt, fait appel au « common senss ». Est-ce que  
10 vous considérez qu'allouer cent soixante-trois  
11 mille mètres cubes (163 000 m<sup>3</sup>) par client  
12 rencontre la règle du « common sense »?

13 (13 h 34)

14 A. As I said, I'm not exactly sure what those numbers  
15 represented and I haven't really thought about it  
16 from that perspective so, you know, let me  
17 reiterate my offer to look back and go through the  
18 calculations that are there and respond to that  
19 through an undertaking, if that's what you want.

20 The issue with using a minimum system or  
21 with using a zero intercept, you know, you can  
22 apply those methods on a regional basis instead of  
23 applying them on a global basis and then you would  
24 presumably get results that are more consistent  
25 with the differences across regions. I don't know

1 that that would have a material impact on the  
2 overall cost allocation but that's a quantitative  
3 issue.

4 In terms of, I guess I don't really  
5 understand what that total volume number is that's  
6 being assigned to each customer. There's a certain  
7 cost, there's a certain access related cost that is  
8 being assigned to each customer, in the minimum  
9 system method and at least implicitly, when this is  
10 applied on a global basis which Dr. Overcast and  
11 the company have proposed, each customer is  
12 essentially being assigned the same, or each  
13 service line is being assigned the same cost so I'm  
14 not sure why that would result in an unreasonable  
15 result in that you've applied it on a global basis,  
16 you're essentially allocating each customer and  
17 access related cost that's, you know, based on the  
18 number of service lines and every customer is  
19 essentially being assigned the same thing.

20 So the end result of the method is that,  
21 from an across the board standpoint, is each  
22 customer is being assigned the same thing and that  
23 does not seem like an unreasonable result and so  
24 that's why I think, in terms of really responding  
25 to your question, I'd rather spend some time and

1 look at that particular interrogatory response and  
2 give it some more careful thought because I'm not  
3 sure what it's saying because my understanding of  
4 the minimum system is that each customer is being  
5 assigned the same costs.

6 Q. [85] Non, ce n'est pas mon intention de vous  
7 demander de refaire des calculs. C'était plus votre  
8 impression ou votre pensée de façon générale. Je ne  
9 vous demanderai pas de prendre d'engagement et de  
10 regarder les chiffres. Vous avez évoqué ce matin,  
11 puis je veux juste comprendre ce que vous vouliez  
12 dire par ça, vous avez dit dans votre présentation  
13 que vous n'êtes pas sûr qu'un réseau de taille  
14 minimal de deux pouces permettrait de servir tous  
15 les clients de Gaz Métro puis vous aviez comme un  
16 doute là-dessus. Qu'est-ce que vous vouliez dire  
17 par ça?

18 A. The idea of the minimum system is that you look at  
19 your configuration of your distribution system in  
20 place, all the pipes are essentially lying where  
21 they are and then you compare that the minimum  
22 system says "Okay, what would it cost instead of  
23 having one of those pipes in place if, instead of  
24 the actual pipes that are there, we would simply  
25 replace them with two inch, with some size small

1 main?"

2 It could be two inch plastic, it could be  
3 plastic and steel, it could be a smaller number but  
4 the idea is you have now, you're looking at a  
5 system which is just two inch pipe and you've  
6 replaced the entire system so, in the company's  
7 model, that's your ten inch steel supply mains,  
8 that's your, you know, eight inch, six inch plastic  
9 mains. All of that is now replaced with a two inch,  
10 in the company's method, a two inch plastic main.

11 (13 h 40)

12 The complaint, when the minimum system, you  
13 know, was initially used or for many years so, and  
14 it's still used in fact. An unadjusted minimum  
15 system says I'm going to take all of the costs of  
16 that two inch main system, and say that access is  
17 related, and I'm going to allocate it based on the  
18 number of customers, or a number of service lines.

19 And the complaint about that approach is:  
20 well, wait a minute, that minimum system has some  
21 load carrying capability, meaning there's some gas  
22 that's being delivered on there, so you're now  
23 saying there are some costs in this access related  
24 piece of the overall cost, that are related to  
25 demand, because this minimum system has load

1 carrying capability.

2 True. And there is no denying that. The  
3 difficulty is figuring out what the load carrying  
4 capability of this new hypothetical minimum system  
5 is. And then, when you figure out what the load  
6 carrying capability of the minimum system is, then,  
7 you go to the demand allocator and say: okay, I'm  
8 going to take the demand that can be served by the  
9 minimum system. I'm going to take this out of your  
10 costs. So if you're a small costor, I'm going to  
11 say what percentage of your cost can I, you know,  
12 what percentage of your load can I serve with the  
13 minimum system? So in the case of doctor Overcast's  
14 proposal, he says all customers who are smaller  
15 than thirty-six thousand five hundred (36,500)  
16 cubic metres a year. We can serve that entire load  
17 with the minimum system.

18 And there's where my conceptual problem  
19 with this method comes, which is you've now  
20 replaced a lot of these fairly large relatively  
21 high pressure mains with a two inch plastic main,  
22 and you're implicitly saying: I can serve every  
23 small customer downstream of what is now an eight  
24 inch steel main, I can serve every single customer  
25 with a two inch plastic main. And that's what I

1 don't believe.

2 I don't believe you can, that you can  
3 replace a lot of the relatively large higher  
4 pressure mains on your system with a two inch  
5 plastic main, and say this is going to cover every  
6 small customer downstream. Because, I mean, in  
7 doctor Overcast's numbers, it's only, you know,  
8 maybe, maybe fifteen (15) residential customers you  
9 can serve with a one kilometre (1 km) length of two  
10 inch plastic main. Surely, there are pieces of the  
11 distribution system, and probably most of the  
12 supply system, which have many more customers,  
13 small customers downstream, from any particular  
14 length of pipe. And therefore, you have, for those  
15 particular mains, you have understated the access  
16 component of costs.

17 LE PRÉSIDENT :

18 Q. [86] Donc, si je vous comprends bien, lorsqu'un  
19 distributeur ou une Régie veut déterminer la  
20 meilleure façon d'établir la composante accès d'un  
21 réseau, elle a le choix entre deux modèles  
22 théoriques qui ne servent aucun, et qui ne peuvent  
23 réellement servir de client?

24 A. Yes. I'm sorry.

25 Q. [87] Yes?

1 A. I don't want to be too jaded and negative about  
2 this. None of these methods are perfect. They are  
3 approximations. But both the minimum, I mean the  
4 Zero Intercept model is often criticized as being  
5 theoretical, and there is no Zero Intercept, no one  
6 would ever build a Zero Intercept system. Obviously  
7 not. I agree. But no one would ever build a minimum  
8 system either. It's just not going to happen. No  
9 one is going to build a system that's all two inch  
10 plastic, that's all two inch plastic mains.

11 Both of them are theoretical models. Both  
12 of them provide some kind of an approximation to  
13 costs. Both of them reflect the common sense idea  
14 that there's an access component, and a demand  
15 component. And both of them are theoretically  
16 imperfect. But, you know, this is how it's been  
17 since I started doing this work in the early  
18 nineteen nineties (1990s). It probably was like  
19 that for decades before that.

20 (13 h 46)

21 I think, you know, that, and I see it  
22 starting to happen, a movement towards more  
23 breaking up of the system into its pieces, and  
24 trying to assign, directly assign more and more of  
25 those things. I think, eventually, that's where

1 this process will go. But, you know, there are  
2 data constraints and it's complicated, and it does  
3 not appear that we are there to do that in total  
4 for Gaz Métro at this time. But the answer is yes.

5 Q. [88] Et ce qu'on a compris de Gaz Métro hier  
6 concernant les bases de données c'est que si en  
7 plus vous avez la chance d'avoir un système SAP, il  
8 y a de bonnes chances que vous ne puissiez pas  
9 avoir d'information sur votre réseau de façon très  
10 fine. Parlant de base de données, vous avez dit  
11 tantôt que vous êtes convaincu que Gaz Métro a fait  
12 un bon travail d'épuration de la base de données,  
13 il l'a fait de bonne foi et nous en sommes  
14 convaincus aussi. Mais il y a une question qui  
15 avait été posée au docteur Overcast sur la  
16 relation, si la relation entre le coût et le  
17 diamètre suivait une loi normale et il a répondu  
18 que non. Et nous savons que Gaz Métro a fait une  
19 épuration de sa base de données en ne gardant les  
20 données, en ne gardant que les données qui  
21 satisfont la condition de la loi normale. Est-ce  
22 que vous avez un commentaire à faire sur ça?

23 A. Having... sometimes, having looked at historical  
24 accounting data for a variety of utilities, a lot  
25 of times you will see observations that just are



1 way out of the range of what's typical. And for a  
2 cost allocation exercise, I think it probably makes  
3 sense to exclude extreme observations, particularly  
4 ones that skew the overall data set. Whether the  
5 correct criterion for excluding the outliers is one  
6 standard deviation or two standard deviations, I  
7 don't actually remember which one Gas Métro picked,  
8 or four standard deviations, or Six Sigma standard  
9 deviations, this is, I think, a matter of  
10 judgement.

11 It's also a testable... it's something you  
12 can test. That is... I think Dr. Overcast concluded  
13 that the clean data show a pattern of costs when  
14 you look at costs by size of main, differentiated  
15 between plastic and steel, that generally looks  
16 reasonable in terms of it being consistent with  
17 what you would expect for other gas distribution  
18 utilities.

19 I don't think this would be a difficult  
20 problem, and the company would be better to answer  
21 it, but if they're using Two Sigma, you could then  
22 just re-run the numbers and only exclude things  
23 that are off by Six Sigma. Then you're excluding  
24 fewer... you're excluding only more extreme data  
25 points, and then you look at it and you say, how

1 much different is that? I mean, does that now  
2 substantially modify the cost pattern, and does  
3 that have a big impact on your allocated costs? I  
4 mean, when in doubt, my preference is to keep data  
5 rather than throw it out, but if you have  
6 individual data points that are really extreme, you  
7 don't want them to sway your results.

8 (13 h 52)

9 So I think that's my answer, is that I  
10 think you should eliminate extreme observations,  
11 and you could test different criteria for which  
12 data to exclude and see how big the impact is to  
13 know whether or not you should be worried about  
14 this particular issue.

15 Q. [89] I'd like, sir, to continue on this line of  
16 questions. So, if I understand the words you used  
17 very carefully in your answer, you... and if I  
18 understood correctly Dr. Overcast, you also agree  
19 that it's not necessarily that the data will follow  
20 a normal distribution. Do you believe it does  
21 follow a normal distribution necessarily? Because  
22 you said this morning...

23 A. No, I don't... I don't have any preconceived  
24 notions about what the variance looks like in your  
25 data when looking at cost per meter for a

1 particular type of main or anything like that.  
2 Again, you know, I used... I mean, it's, I think,  
3 fairly common, when looking at whether an  
4 observation is an outlier, to use some multiple of  
5 standard deviations, whether... you know, whether  
6 the distribution is normal or it's skewed in one  
7 particular direction or another.

8           You know, depending on how intense you want  
9 to get about this, you certainly can look at the  
10 data. I mean, you can plot the distribution of  
11 what the data looked like, and look at it and say,  
12 you know, here are the ones that are clearly  
13 outliers. When in doubt, I look at data. So,  
14 rather than necessarily using a statistical  
15 approach, I'd start by looking at the data.

16           But, as I said, if you've got lots and lots  
17 of different observations in different categories  
18 and you've got a criterion for excluding data in  
19 each of them, you know, looking at each data set  
20 may be unduly complicated and time consuming.

21           So, generally, I think that some number of  
22 standard deviations would not be an unreasonable  
23 shorthand for some way to try to identify outliers.

24 Q. [90] Thank you.

25

1 LE PRÉSIDENT:

2 Thank you very much, Mr. Knecht. Maître Sarault,  
3 est-ce que vous aurez un ré-interrogatoire?

4 Me GUY SARAULT :

5 Non.

6 LE PRÉSIDENT :

7 Donc merci beaucoup. Thank you very much, Mr.  
8 Knecht.

9 A. You are most welcome.

10 DISCUSSION

11 LE PRÉSIDENT :

12 Vous êtes libéré. Thank you very much.

13 Me GUY SARAULT :

14 Monsieur Knecht m'a dit qu'il avait hâte de  
15 retourner à Boston pour retrouver la somme  
16 considérable de travail qui l'attend, ce n'est pas  
17 par manque de courtoisie mais il aimerait ça  
18 quitter le plus tôt possible.

19 LE PRÉSIDENT :

20 Bien il n'y a pas de problème. Merci. Thank you  
21 very much. Donc Maître Gertler vous pouvez  
22 procéder.

23 (13 h 58)

24 Me FRANKLIN S. GERTLER :

25 Bonjour, c'est Franklin Gertler, pour la ROEE. On

1 me pose, dans les coulisses, des questions sur le  
2 panel. Alors, je vais m'exprimer comme ça, au  
3 micro. Le panel qui est installé consiste de  
4 monsieur Paul Chernick et de monsieur Bertrand  
5 Schepper, qui est analyste pour la ROÉÉ.  
6 Maintenant, ma compréhension c'est qu'il va y avoir  
7 un panel ou un témoin à part ensuite pour UC.

8 C'est que monsieur Chernick, son rapport a  
9 été utilisé et il y a eu des échanges pour la  
10 préparation d'UC mais ce n'est pas une position  
11 commune des deux intervenants, c'est ça ma...  
12 nécessairement. C'est ça ma compréhension. Alors,  
13 nous, on administre la preuve d'experts mais, oui,  
14 pour les deux.

15 LE PRÉSIDENT :

16 O.K. Et est-ce que je dois comprendre que monsieur  
17 Schepper va témoigner lui aussi et a un mémoire à  
18 présenter?

19 Me FRANKLIN S. GERTLER

20 Non, monsieur Schepper va témoigner pour la ROÉÉ  
21 mais il n'a pas... il a juste une courte, très  
22 courte présentation pour le client.

23 LE PRÉSIDENT :

24 On ne l'empêchera pas de témoigner mais,  
25 normalement, on dépose le CV du témoin avant...

1 Me FRANKLIN S. GERTLER

2 Bien, c'est-à-dire que c'est un témoin ordinaire,  
3 Monsieur le Président. Mais si vous voulez avoir le  
4 CV, on pourrait prendre l'engagement de le faire,  
5 mais on ne l'a jamais fait... en quinze (15) ans,  
6 je ne l'ai jamais fait pour les témoins ordinaires  
7 ici. Je ne sais pas...

8 Mme LOUISE PELLETIER :

9 Bien, on l'a...

10 Me FRANKLIN S. GERTLER

11 Je sais qu'Hydro-Québec puis Gaz Métro on  
12 l'habitude de le faire mais c'est... ça fait  
13 partie, peut-être, des ambiguïtés quant à la  
14 position de la Régie, à savoir qui est expert puis  
15 qui est témoin ordinaire. Mais ma compréhension est  
16 que l'analyste est un témoin ordinaire.

17 LE PRÉSIDENT :

18 Oui, mais... Bon, enfin, on...

19 Mme LOUISE PELLETIER :

20 Tout ça a rapport à la crédibilité de votre témoin  
21 aussi, hein. S'il vient nous parler de choses  
22 économiques puis qu'il a un bac en littérature,  
23 vous me permettrez de douter de la crédibilité du  
24 témoignage dans une allocation de coût. C'est  
25 uniquement pour nous aider à mieux apprécier.

1 Me FRANKLIN S. GERTLER  
2 Vous savez...  
3 Mme LOUISE PELLETIER :  
4 C'est uniquement pour ça, Maître.  
5 Me FRANKLIN S. GERTLER  
6 ... qu'est-ce qui est arrivé à monsieur Dubuc quand  
7 il a parlé contre la littérature mais...  
8 LE PRÉSIDENT :  
9 Bolduc. Bolduc.  
10 Me FRANKLIN S. GERTLER  
11 Bolduc, excusez-moi.  
12 LE PRÉSIDENT :  
13 Notre ex-ministre de l'éducation.  
14 Me FRANKLIN S. GERTLER  
15 Bolduc, alors. C'est ça. Bon. Alors, trêve de  
16 plaisanterie. Mais je suis certain que monsieur  
17 Shepper pourrait aussi donner une petite idée de  
18 ses... de son bagage. Alors, le panel étant  
19 assermenté, on expliquait... pas assermenté,  
20 installé c'est-à-dire, vous pouvez peut-être passer  
21 tout de suite à l'assermentation, Madame la  
22 Greffière, s'il vous plaît.  
23  
24  
25

1 L'AN DEUX MILLE QUINZE (2015), ce seizième (16ième)  
2 jour du mois d'avril, ont comparu :

3

4 PREUVE ROÉÉ

5

6 PAUL L. CHERNICK, president of Ressource Insight  
7 Incorporated , ayant une place d'affaires au 5,  
8 Water Street, Burlington, Massachusetts;

9

10 BERTRAND SCHEPPER, analyste en énergie, ayant une  
11 place d'affaires au 711, rue Woodland, Verdun;

12

13 LESQUELS, après avoir fait une affirmation  
14 solennelle, déposent et disent :

15

16 Me FRANKLIN S. GERTLER :

17 Merci. Maintenant, Monsieur le Président, j'avais  
18 promis de produire l'original de l'affidavit de  
19 monsieur Chernick, l'affidavit par rapport aux  
20 documents, et ce que je fais tout de suite. Madame  
21 la Greffière, ça a déjà été produit sous la cote...  
22 bien, la lettre C-ROÉÉ-48 et l'affidavit comme tel  
23 c'est C-ROÉÉ-49, qui était un pdf. Est-ce que vous  
24 voulez coter maintenant l'original ou non?

25



1           Mme LA GREFFIÈRE :

2           S'il est déjà coté, non, ce n'est pas nécessaire.

3           Me FRANKLIN S. GERTLER :

4           O.K. Très bien. Je vous donne simplement

5           l'original. Vous l'avez déjà, les membres ne

6           veulent pas d'autres copies, j'imagine, c'est le

7           même document. C'est l'original de C-ROÉÉ-049.

8           Maintenant, j'attire l'attention, à ce moment-là,

9           du tribunal au fait qu'avec ça, les pièces

10          C-ROÉÉ-007, qui est le curriculum vitae de monsieur

11          Chernick; 0040, qui est la preuve avec une

12          correction de date, la preuve écrite de monsieur

13          Chernick et, 0045, qui sont ses réponses à la

14          demande de renseignement numéro 1. Ces pièces-là

15          sont maintenant adoptées. Puis vous remarquerez

16          que, dans l'affidavit, il y a des mineures

17          corrections, de menues corrections qui sont

18          apportées et qui sont détaillées au paragraphe 4 de

19          l'affidavit. Maintenant, j'ai également... j'ai

20          distribué déjà la présentation. Comme j'ai

21          mentionné, il n'y a pas de présentation comme telle

22          pour monsieur Schepper mais pour monsieur Chernick,

23          il y a la présentation qui s'appelle « Gaz Métro

24          Cost Service Allocation Process », en date

25          d'aujourd'hui. Présentation PowerPoint, et ça je

1           crois que ça doit être coté, à ce moment-là,  
2           C-ROÉÉ-50, si je ne me trompe pas. Très bien.

3           INTERROGÉS PAR Me FRANKLIN S. GERTLER :

4           Q. [91] Monsieur Schepper, à ce moment-là, je vous  
5           demanderai de commencer votre courte présentation  
6           puis vous pourrez peut-être vous présenter  
7           également, comme ça, ça va être... pour ceux qui ne  
8           vous connaissent pas déjà. Merci.

9           M. BERTRAND SCHEPPER :

10          R. Donc, bonjour au panel. Bon, je me nomme Bertrand  
11          Schepper, je dois vous dire d'emblée que j'ai un  
12          profond amour pour la littérature mais aussi que je  
13          détiens un bac en administration de HÉC Montréal et  
14          une maîtrise en science politique de l'UQAM. Donc,  
15          j'agis comme analyste externe pour le ROÉÉ et  
16          maintenant ça fait à peu près cinq à six ans que je  
17          fais ça présentement. Donc, j'ai quand même touché  
18          un peu au dossier plus particulièrement chez Gaz  
19          Métro.

20                        Donc, le but, en fait, de ma présentation  
21          est juste un peu d'expliquer la démarche du ROÉÉ  
22          qui, comme vous le savez, est un groupe qui  
23          représente généralement des intérêts  
24          environnementaux dans ce type de dossiers. Et, bon,  
25          comme vous le savez, on a été... on avait demandé,

1 au départ, l'avis d'un expert pour bien comprendre  
2 le dossier. Un peu comme tout le monde ici, je  
3 pense qu'en décembre dernier, lorsqu'on a vu la  
4 preuve arriver, malgré mon amour profond de la  
5 littérature et mes... je n'ai pas été capable de  
6 m'assurer de bien comprendre tous les tenants et  
7 aboutissants, on avait demandé l'aide de monsieur  
8 Chernick, comme expert-conseil, lors des rencontres  
9 d'information.

10 Par la suite, on s'est posé plusieurs  
11 questions, on était intéressés à avoir des  
12 questions à certaines questions tarifaires. Et dans  
13 votre décision, je pense, D-2014... 2014-D-11,  
14 paragraphe 22, vous nous aviez bien avertis que ce  
15 n'était pas sur les questions tarifaires mais bien  
16 sur le concept et, entre guillemets, la philosophie  
17 derrière l'allocation des coûts qu'il fallait se  
18 questionner. Pour nous, il est important de faire  
19 ce débat-là et de bien le comprendre afin ensuite  
20 d'avoir des questions tarifaires qui, vous vous en  
21 doutez, ne seront peut-être pas les mêmes que pour  
22 tout le monde dans la salle ici.

23 Donc, en fait, pour nous, l'objectif qu'on  
24 a... et le mandat, un peu, qu'on a donné à monsieur  
25 Chernick c'était de bien comprendre le « minimum

1 system » et de vérifier si ça correspondait aux  
2 pratiques courantes de chez Gaz Métro. Avec ce  
3 mandat-là, UC s'est notamment intéressée à la  
4 preuve de notre expert, c'est pour ça qu'on s'est  
5 mis en semble. Et, comme tel, je ne parlerai pas  
6 pour UC mais pour ce qui est du ROÉÉ, ça représente  
7 la preuve du ROÉÉ aussi.

8           Donc, pour nous, monsieur Chernick a  
9 répondu aux questions qu'on amenait. Et, bien, je  
10 vais le laisser, finalement, faire sa présentation.  
11 Je vous dirais qu'on a essayé, dans cet exercice-  
12 là, non pas d'être neutre, parce qu'on ne pense pas  
13 vraiment que la neutralité existe, mais bien d'être  
14 le plus objectif possible. Merci.

15 Q. [92] Merci, Monsieur Schepper.

16           (14 h 09)

17 Now Mr. Chernick, most of the evidence, good  
18 afternoon, most of the evidence - we'll do this in  
19 English so until the questions start coming in  
20 French, you should be able to just follow  
21 directly...

22 Mr. PAUL L. CHERNICK:

23 A. Although these headphones actually work very well.

24 Q. [93] Ah, okay. So if I mumble, you'll be able to  
25 hear me. Okay, good.

1 A. I'll take them off for now.

2 Q. [94] As you know, through the affidavit that you  
3 swore, your CV, your evidence with some small  
4 corrections and your answers to the interrogatories  
5 of the Board have already been adopted as your  
6 written evidence but, today, there is the new  
7 element of your PowerPoint presentation which we've  
8 just given an exhibit number, C-ROÉE-0050, I just  
9 want to ask you whether it was prepared by you and  
10 whether you have any additions or corrections?

11 A. I don't. As we go through, I'll be explaining some  
12 things.

13 Q. [95] Okay. So you adopt it as part of your evidence  
14 in this hearing?

15 A. I do.

16 Q. [96] Okay. Now you're going to tell me whether you  
17 need to do this or not, do the... This is a copy of  
18 your affidavit in case you don't have it handy.

19 A. Thank you.

20 Q. [97] As I mentioned just a couple of minutes ago to  
21 the Board, the affidavit does include a paragraph  
22 4, which is the affidavit which is C-ROÉE-0049,  
23 does call the attention of the Board to certain  
24 corrections. Do you have other to your expert  
25 evidence...

1 A. Yes.

2 Q. [98] ... direct evidence, are there other  
3 corrections or do you want to explain what those  
4 corrections are about?

5 A. Well, the one in the affidavit is actually in  
6 response to some very careful reading of my  
7 testimony by the Board which asked me about  
8 inconsistencies between numbers I used in the text  
9 and numbers in the table and in the text, I had  
10 laid out an example in words to perhaps make the  
11 table clearer. I then corrected some problems in  
12 the table and forgot to correct the text and so  
13 they were inconsistent. I explained that in my  
14 response to the Board's question and I show the  
15 changes in the affidavit.

16 That was just an example which was intended  
17 to make the table easier to understand. It probably  
18 didn't have that effect for people but it had no  
19 effect on any of my other conclusions or  
20 calculations.

21 Q. [99] Okay. And are there any other corrections or  
22 additions?

23 A. There are a couple of very small ones.

24 Q. [100] Okay.

25 A. First of all, on page 14, which is page 16 if

1       you're looking, of the PDF, if you're looking at it  
2       electronically.

3       Q. [101] This is of your direct evidence?

4       A. Of my direct evidence.

5       Q. [102] C-ROÉE-0040, right?

6       A. Yes.

7       Q. [103] Okay.

8       A. In the caption for figure 3.

9       Q. [104] Yes.

10      A. Excuse me, starting first at the top of the page,  
11      the caption for figure 2, that is actually showing  
12      « Gaz Métro Step 1 » so it says « Step 2 » there,  
13      it should say « Step 1 ».

14      Q. [105] Right.

15      A. And then figure 3 down below, it says « Step 1 »  
16      and it should say « Step 2 ».

17      Q. [106] Okay.

18      A. My apologies for that.

19      Q. [107] We won't accuse you of linear thinking  
20      anyway.

21      A. I moved these figures around a number of times in  
22      putting the testimony together and they didn't  
23      always go with the right captions, the right way.  
24      The other point down on page 27, line 21, is  
25      perhaps even more minor. In there, I refer to Gaz

1 Métro's application for authorisation to extend  
2 service mains and while there's nothing wrong with  
3 the word « service » there, it is a little vague  
4 and, really, a better word there would be the  
5 « supply mains ». And those are my only  
6 corrections.

7 Q. [108] Okay. Now, before you get right into your  
8 presentation, Mr. Chernick, I just have a couple of  
9 questions to ask you. As you know, I believe on  
10 Monday, the Board accepted our application to have  
11 you recognised as an expert in this proceeding with  
12 the following qualification: expert in public  
13 utility regulation and planning, including cost  
14 allocation and rate strategy structure and design.  
15 Right?

16 A. Yes.

17 (14 h 14)

18 Q. [109] And now, your CV which runs to some forty-six  
19 (46) pages was filed in this proceeding as appended  
20 to the application intervenor as exhibit C-ROÉÉ-  
21 0007 and, of course, you're close to three hundred  
22 (300) expert testimonies over some thirty-five (35)  
23 years. So the Board is satisfied with your  
24 expertise, but I think it's nonetheless useful, if  
25 you could just us a little bit about your training,



1 and your practice, and in particular, your  
2 experience in public utility cost allocation in  
3 various jurisdictions?

4 Q. [110] Okay. I have a masters in technology and  
5 policy from the Massachusetts Institute of  
6 Technology. I started working in nineteen seventy-  
7 seven (1977) for the Massachusetts Train General,  
8 as a utility rate analyst, supporting the  
9 interventions and testifying in cases involving  
10 mostly electric utility proceedings, before the  
11 Massachusetts Department of Public Utilities. Since  
12 nineteen eighty (1980), I've been in the consulting  
13 role, and I have worked for a few years for another  
14 firm, and established my own firm in nineteen  
15 eighty-six (1986). And I am still, I'm still doing  
16 that same job, all these years later.

17 In nineteen eighty (1980), I believe, I  
18 filed my first piece of testimony regarding cost  
19 allocation, from which I wrote a paper that became  
20 an award, received an award from the Institute for  
21 Public Utilities, on, this happened to deal with,  
22 regarding the allocation of generation cost for  
23 electric utilities. And since that time, since  
24 nineteen eighty (1980), I've testified in a large  
25 number of U.S. states, and three Canadian

1 provinces, on cost allocation issues; in Alberta,  
2 in Manitoba, and in Nova Scotia. And I've also  
3 worked in a number of other sometimes related  
4 issues, in Ontario. This is my first appearance  
5 before you in Québec.

6 Q. [111] Okay. Well, I think that helps, Mr. Chernick,  
7 and so, I'll just let you go ahead then, and make  
8 your presentation.

9 A. Thank you for not making me talk any more about all  
10 the things I've done. Good afternoon panel. I'll  
11 try and get through this presentation as  
12 expeditiously as I can, well, still trying to cover  
13 the important points. This is an overview of the  
14 presentation, so it's briefly going over both the  
15 high points of my pre-filed evidence, trying to  
16 stay out of the weeds of the data and so on, and  
17 talk about the important concepts, and covering the  
18 purpose of cost allocation, in particular avoiding  
19 the overuse of allocation on what could be called  
20 access measures.

21 Customer number is the measure of access  
22 requirements that are, that is most widely used,  
23 and people have referred to that extensively in  
24 this proceeding, although for means allocations,  
25 which is the major subject of this hearing, because

1           it's perhaps the single largest cost item, Gaz  
2           Métro actually proposes to use connection number,  
3           and I don't believe anyone's really been arguing  
4           with that, as a measure of the access related  
5           demand on the system.

6                     And as I said, allocations means is a big  
7           issue, and in my evidence, I present a realistic  
8           model based on Gaz Métro's actual planning issues  
9           and drivers, for causes main extensions, causes the  
10          company to extend mains, how they're used, the  
11          importance of making sure that economies of scale  
12          are shared among the classes in a fair way, in an  
13          equitable way, and that everyone is paying fairly  
14          for the cost of, the basic cost of covering the  
15          service territory, whatever area within the  
16          province Gaz Métro is going to serve, that those  
17          costs are, the cost of serving the territory are  
18          being allocated fairly. And I also touch briefly on  
19          issues related to supply mains, and to other  
20          expenses.

21          (14 h 20)

22                     Okay.     Starting with the purpose of cost  
23          allocation, the purpose is to divide the embedded  
24          costs of the company, the ones that you're going to  
25          allow them to recover in revenue requirements in

1 future cases, equitably -- and you could use a lot  
2 of other words other than "equitably" -- among the  
3 consumer groups. And usually we would just say  
4 classes, but in the case of Gaz Métro, we have  
5 classes and then we have size groups within the  
6 classes, and sub-classes, and it's a little bit  
7 more complicated. So let's just talk about groups  
8 of customers.

9 And I think everybody agrees that it's  
10 important that cost allocation be based on  
11 causality, on what causes the cost. And usually  
12 that's linked to how the facilities are used now,  
13 but sometimes, in the interest of fairness, it's  
14 also necessary to look historically at why do we  
15 have this cost. Because a particular piece of  
16 equipment or a facility may be used very  
17 differently today than what it was originally  
18 intended for. It may be very under-utilized, it may  
19 have been switched from being... performing one  
20 function to performing another function, and  
21 perhaps very inefficiently at that, so sometimes  
22 you have to look beyond how is it used today, and  
23 say, "How did we wind up with this cost in the  
24 first place? Did we invest in this? Did we commit  
25 to this cost, to provide the services providing

1 today or to provide something else? And if so, what  
2 kinds of customers drove that need?"

3 And in general, this process focuses on  
4 average costs. And by average costs, I mean, first  
5 of all, embedded average costs, not the marginal  
6 costs. There are some jurisdictions that look at  
7 the marginal cost of putting in the next service  
8 drop, the next connection to customers, the next  
9 meter, and so on, but most jurisdictions use an  
10 embedded cost allocation to allocate these embedded  
11 costs.

12 And I think the only place where that's  
13 been questioned in this case is that Mr. Knecht  
14 prefers to use marginal cost for the steel pipes on  
15 the grounds that when they're replaced, they'll be  
16 replaced with something else that's a marginal cost  
17 concept being layered onto an embedded cost  
18 analysis. But otherwise, I think they're all pretty  
19 much on the same board about... on the same...  
20 working from the same idea about embedded costs.

21 Usually, as a matter of fairness,  
22 geographic cost variations are excluded from the  
23 allocation analysis, and I certainly think that  
24 charging more for classes that happen to be  
25 concentrated in high-cost areas, which I think

1 Mr. Knecht was arguing for, is generally a bad  
2 idea. Although he did say you don't have to charge  
3 them for it, but you should allocate the cost to  
4 them and then decide that you're not going to  
5 charge them. In general, I don't think that the  
6 board wants to get into saying if a mile of four-  
7 inch pipe is more expensive in this part of the  
8 province than in that part of the province, then  
9 the customer classes that are more in one area than  
10 another are going to pay more because of the costs  
11 of installation.

12 And that may be because of the next point;  
13 vintage. The most recent installations tend to be  
14 the most expensive, because they were built in the  
15 latest year's dollars, and they weren't built in  
16 nineteen fifty-six (1956) dollars, they were built  
17 in two thousand and six (2006) dollars, and they  
18 tend to be more expensive. But it can also be for  
19 other factors, such as density of customers along  
20 the line or the soil conditions, or a number of  
21 other factors that would make cost differ from one  
22 region to another.

23 And finally, in terms of average cost, I  
24 think it's important to recall that what we're  
25 looking at is how do you allocate a group of costs

1       such as distribution mains? In general, it doesn't  
2       matter whether you get the right allocation for a  
3       particular size of main; the question is, have we  
4       properly captured the overall cost of the mains.  
5       So, whether you've gotten the 160-millimetre costs  
6       exactly right is less important than whether you've  
7       got a reasonable answer for the group of mains as a  
8       whole. Now, you often need to go through the pieces  
9       to get to the total, but again you're looking...  
10      you're really interested in the average.

11      (14 h 25)

12                 Another very important point is that cost  
13       allocation is not rate design. The drivers of cost  
14       within a class may be very different from the broad  
15       class-wide data that you use in allocation between  
16       classes, that some costs that are allocated to a  
17       particular group of customers... not every customer  
18       necessarily imposes that kind of cost, and before  
19       you get to rate design, you need to think about  
20       whether the way that you put the cost into this  
21       basket is the same way that you want to recover  
22       them in rates.

23                 And again, for allocation, only the average  
24       cost within the class matters. When you're talking  
25       about the cost of a residential meter, we really

1 don't care how many different kinds of meters there  
2 are, if you knew exactly what the costs of all  
3 those meters that are used for residential  
4 customers were, you could come up with an average  
5 cost or a total cost for serving the residential  
6 customers. That does not mean that when you get to  
7 the rate design, that a small customer has the same  
8 kind of meter and incurs the same cost as the  
9 largest of the residential customers. Maybe they  
10 do, maybe they don't. It's a question that needs to  
11 be looked at separately. The cost allocation should  
12 not be viewed as driving the rate design.

13           And one reason for the split between cost  
14 allocation and rate design is that cost allocation  
15 has very little effect on customer behaviour.  
16 We're talking about just taking a group of dollars  
17 and saying, this group of thousands of customers  
18 collectively is going to pay this much to Gaz  
19 Métro. That's not going to affect the customer  
20 behaviour in terms of whether new customer decide  
21 to connect, whether customers conserve or use more,  
22 change their usages, it's really all about fairness  
23 between the groups of customers.

24           Now, sometimes the allocation can constrain  
25 your rate design. There's too little cost in there



1 to reflect... to give the price signals that you  
2 might want to give, or the rates are so high that  
3 you have to overcharge, the allocation is so high  
4 that you have to overcharge in some part of the  
5 rate structure compared to what you would prefer to  
6 do. But that's a relatively limited effect.

7 A major effect of... for the most part,  
8 cost allocation just does not affect how customers  
9 behave and it doesn't have to determine the rate  
10 design, because rate design can affect usage, and  
11 for rate design, therefore, marginal costs and  
12 policy, policies about conservation, protecting  
13 low-income customers, for example, those are  
14 important issues for rate design, not necessarily  
15 for cost allocation.

16 Okay. One problem that I highlight in my  
17 testimony is that the minimum system approaches,  
18 both the zero intercept and the minimum-size  
19 approach used by the company, are one example of  
20 utilities using the customer count, the access  
21 measures as a dumping ground for costs. And I  
22 reproduce here a quote from Bonbright, whom I  
23 believe both Dr. Overcast and Mr. Knecht cite as an  
24 authority, criticizing that practise of saying,  
25 "Well, we don't know exactly what causes this cost,

1 so we'll just allocated it on the basis of customer  
2 number."

3 The minimum-system approach is a very old  
4 one going back... well, to long before I started,  
5 probably back into the fifties ('50s) or earlier.  
6 And neither the zero intercept nor the minimum-size  
7 approach, as it's usually applied, has any real  
8 connection to how costs are incurred for Gaz Métro.  
9 Customer number by itself drives very few costs.  
10 The number of customers determines the number of  
11 meters you need, it has a strong effect on the  
12 meter reading costs, the costs of sending out meter  
13 readers or otherwise getting readings back to the  
14 offices, of sending out bills, to some extent, on  
15 the costs of customer service, answering customers'  
16 questions about their bills, and so on. But even  
17 there, from class to class, it may be important to  
18 wait by the cost per customer because a very small  
19 customer will have a different kind of a meter than  
20 a very large customer, but still, more customers  
21 means more of those things. But that's a fairly  
22 slice of the utility's total cost and the number of  
23 connections, the other measure of access that has  
24 come up in this case, really only drives the cost  
25 of connections to the system - it doesn't affect

1 mains or much of anything else directly.

2 (14 h 30)

3 So then what does drive the mains  
4 extension? Well, in the minimum system theory,  
5 that's based on the assumption that the utility is  
6 willing to extend the mains at its cost for any  
7 customer, no matter how small. And I think Mr.  
8 Knecht makes this point very well, expresses very  
9 well that perspective when he says that the mains  
10 have to be extended to interconnect all customers.

11 Well, obviously, you're not a customer  
12 until you're interconnected but Gaz Métro does not  
13 interconnect everybody in the province, so saying  
14 that the number of customers causes the length of  
15 pipe is not necessarily correct. You could also say  
16 the length of pipe, for whatever reason you put it  
17 in, as a big effect on the number of customers who  
18 can easily interconnect. But it's not as if the  
19 potential customers are out there and Gaz Métro has  
20 to go and connect them all.

21 It might be the way it works for some rural  
22 electric association some place who have a mandate  
23 to connect every farm and will run a line out, no  
24 matter how small the customer is, but it's clearly  
25 not the case for most gas utilities and it's very

1 clearly not the case for Gaz Métro.

2           Anyway, in the Minimum System Theory,  
3 there's this concept that the larger size customers  
4 only increase the size of the mains installed but  
5 never affect the length. The fact that the customer  
6 is larger never has any effect on the length of the  
7 main.

8           Well, in contract, in the real world of Gaz  
9 Métro planning, it's those large demands that drive  
10 the major extensions of mains. You don't build  
11 mains out to pick up a few residential customers or  
12 one gas station a few kilometres out there. But if  
13 there's a big customer, then you'll run it quite a  
14 ways. And small customers may be added to those  
15 backbone mains, the ones that cover many kilometres  
16 and open up new territory.

17           And more load from those small customers  
18 may require more capacity and a larger pipe but  
19 they don't require longer backbone mains. If there  
20 are enough of them along the way, they may justify  
21 running two inch lines, in the case of Gaz Métro -  
22 we're told that's enough to pick up the small  
23 customers - they may justify running those smaller  
24 mains off to add them to the system and if you have  
25 a very large number of small customers, then you

1           may be able to justify an extension of the main  
2           just to pick them up.

3                        If, the example that Dr. Overcast kept  
4           talking about is if you have large new housing  
5           developments being built, you might have enough  
6           load there to justify running a new backbone main  
7           out to connect that area. But that's a function of  
8           the demand from those customers, not the number of  
9           customers.

10                      The number of customers, if they were very,  
11           very small, if they only wanted to have a gas  
12           fireplace each or a decorative gas lamp, they  
13           wouldn't be producing enough revenue to justify Gaz  
14           Métro putting in a lot of pipe to reach them. But  
15           if they're very big heating customers, then the  
16           economics are different and then the extension may  
17           make sense. So it's often demand levels and volume  
18           that are driving the extensions.

19                      And then, in my evidence, I provided some  
20           simple diagrams illustrating these points. In the  
21           Minimum System Theory, you plan the lines, the  
22           mains for small customers and so, on paper, you put  
23           in a two-inch line for everybody. You run two-inch  
24           lines every place that you're going to build the  
25           system. But then you say, "Oh, we have some bigger

1 customers", and so you take out your eraser, you  
2 erase the two-inch line and you put in four and six  
3 and eight-inch lines to reach those larger  
4 customers, and that's what the bottom part shows.

5 (14 h 35)

6 And again, there may be some utilities for  
7 whom this applies, especially on the electric side  
8 but it's not the way that life works for Gaz Métro  
9 as far as I can tell. In fact, what seems to happen  
10 on our next slide, is that Gaz Métro says as for  
11 Thetford Mines, we're going to run a long supply  
12 main out to pick up a small number of large  
13 customers with the big line and then, at some point  
14 in the future, we may pick up smaller residential  
15 customers along the way. Either directly off the  
16 big line or maybe will run some smaller mains out  
17 to pick up a cluster here or there of customers  
18 along the way. And that's the bottom part of the  
19 slide 11 shows.

20 So, in reality, who needs which mains. Well  
21 if Gaz Métro is right about the small customers  
22 only using mains being... only the mains under  
23 two... or mains of two inches or less would be  
24 sufficient to serve all the small customers, large  
25 customers are craving the need for all the large

1 mains and most of the capacities in those mains.  
2 So, every meter of main over two inches is because  
3 of the large customers and most of the capacity in  
4 those mains, is being driven by large customers,  
5 because the small customers just don't have that  
6 much demand.

7 The small customers given what Gaz Métro  
8 have said about their system, would be responsible  
9 for all the small mains, they need all of those  
10 because they are allocated of the big mains and you  
11 need to reach them somehow. And sometimes, you can  
12 do that just with the connection line and  
13 sometimes, you need a main to run a few hundred  
14 meters to pick up a few houses along the road or  
15 whatever.

16 In the need of the small share of the  
17 capacity in the large mains that are driven by the  
18 loads of the large customers, I'd like to emphasize  
19 that the absolute statements that I make here about  
20 every large main and all the small mains, that's  
21 based on what Gaz Métro has told us repeatedly in  
22 this proceeding. Mr. Knecht has raised some  
23 questions about whether maybe the small customers  
24 would need. It's based on what Gaz Métro has told  
25 us repeatedly in this proceeding.

1 (14 h 39)

2 Mr. Knecht has raised some question about  
3 whether maybe the small customers would need an  
4 occasional larger main in total, and the company  
5 itself, in response to examination about a  
6 hypothetical originally offered by the Board in  
7 discovery, said that a two-inch line might be large  
8 enough to serve a customer much larger than the  
9 thirty-six thousand cubic meter (36,000 cu m) level  
10 that the company has defined as the cut-off for the  
11 two-inch mains, that maybe there are some larger  
12 customers who are actually served by two-inch  
13 mains.

14 So these categories may be a little fuzzier  
15 and it certainly would make sense to revisit this  
16 issue from time to time to see if the company can  
17 clarify it. But for our current purposes, it's  
18 useful to think of it in absolute terms and just  
19 say the two-inch only serves the small ones, and  
20 they need a little bit of room on the big mains.  
21 And the big mains are built for the big customers.

22 So my next topic is how do the various  
23 approaches share the economies of scale of having  
24 mains that are larger than two inches? Well, in  
25 the minimum system theory, small customers get no



1 economies of scale. You treat the small customers  
2 as if they were served exclusively off of two-inch  
3 lines, and they get no credit for just having part  
4 of the load in a much larger, more economic pipe.

5 So the access component winds up recovering  
6 the fixed cost of trenching and installing two-inch  
7 pipe along every main of every size, and that winds  
8 up being a huge portion of the main's cost. And  
9 only the large customers get any of the economies  
10 of scale through the capacity component. And the  
11 small customers pay full stand-alone costs for a  
12 system of mains as if they were the only customers,  
13 and large customers pay less than they would have  
14 without the small customers, because the small  
15 customers get charged for digging the trench,  
16 tearing up the road, repairing the road, and  
17 putting in the most expensive part of the pipe, the  
18 first two inches.

19 And I think that violates both the cost  
20 causality principle that I talked about before, and  
21 really the idea of average cost. Rather than  
22 thinking about the average cost of this pipe and  
23 how we divide that up, the minimum system approach  
24 is take more than average cost and put them on the  
25 small customers, and give the large customers...

1 not a free ride, but an inexpensive ride.

2           Okay, I repeat myself sometimes, so I get  
3 to skip some of the slides. So, even where a two-  
4 inch pipe is not installed, the minimum system  
5 theory would charge small customers for the two-  
6 inch pipe. There may not even be a small customer  
7 downstream of that pipe, but it's charged to them  
8 anyway, charged as if they were there.

9           Now, in the realistic planning model that I  
10 put forth, where two-inch pipe is actually  
11 installed, then the trenching and other costs are  
12 allocated on the connection count and go primarily  
13 to small customers. Those are small lines, we think  
14 that they serve primarily small customers, and so  
15 the small customers primarily pay for them. And  
16 that's really the same as Gaz Métro's approach for  
17 those lines.

18           But where larger lines are installed, then  
19 the trenching and the cost of the actual pipe, in  
20 my approach, is allocated on demand and spread out  
21 over everybody who uses the pipe. And the small  
22 customers are just part of that, and they wind up  
23 paying less than they would for a two-inch pipe,  
24 since there's actually a big pipe, and their  
25 requirement in that pipe is relatively inexpensive.

1 As Dr. Overcast has explained in great detail,  
2 there are lots of economies of scale in pipe  
3 diameter.

4 (14 h 44)

5 Slide 17 shows a quick summary of the  
6 differences in the results. Gaz Métro puts about  
7 seventy-one percent (71%) of the distribution  
8 mains, or sixty-five percent (65%), if you include  
9 distribution and supply mains in your analysis,  
10 puts those very heavy percentages onto access. And  
11 in my more realistic proposal, much smaller  
12 percentages are on access.

13 Just a little aside that doesn't have to do  
14 with the mechanics of cost allocation, but more the  
15 process, it's my understanding that basically cost  
16 allocation approaches have been frozen for Gaz  
17 Métro for the last twenty (20) years or so, and I  
18 would be surprised by that if I hadn't just done a  
19 cost of service study for a case for Nova Scotia  
20 Power, which was doing its first review of cost of  
21 service in twenty (20) years. And it turned out  
22 that some of the data that they used in the mid-  
23 nineties ('90s) for their last version had actually  
24 come from studies done in the late seventies  
25 ('70s), and nobody knew anymore where those data

1 came from or what they meant. So it was a  
2 complicated process, and we have to expect that  
3 this will be a complicated process.

4 But most jurisdictions actually do some  
5 review of the cost allocation in every rate  
6 application. And some utilities file rate cases  
7 every year, and every year the cost allocation is  
8 at issue. And the utility makes a proposal, it may  
9 make multiple proposals and have a... do multiple  
10 cases and provide a recommendation to the  
11 commission, and other parties will have other  
12 proposals and there will be arguments on the merits  
13 of the methodologies and of the data and so on.

14 Now, sometimes a revenue requirements case  
15 will get complicated, and the regulator will say,  
16 "We can't deal with this, especially if we have a  
17 statutory deadline." And they'll say, "We're going  
18 to deal with this in a part two to the case," or  
19 "We'll deal with it in the next rate case, and for  
20 this case, whatever rate increase is allowed will  
21 be equal percentage on all parts of the rate  
22 structure." Or they may say, "We'll have a  
23 separate docket to consider it." Like this one,  
24 but imagine that you're doing this case three (3)  
25 years after the last one, instead of twenty (20)

1 years, when people remember what they did, perhaps,  
2 last time around.

3 And when regulators set a precedent and  
4 they say, "We're going to use... we're going to  
5 allocate this particular set of costs on demand,  
6 including the interruptible load or excluding the  
7 interruptible load," or whatever, the parties are  
8 generally free to argue with that. They may have  
9 gotten a message that it's probably not worthwhile  
10 because the regulator thinks they know what they  
11 want, but even in those situations, the issues are  
12 at least nominally up for review.

13 And cost and usage patterns, the nature of  
14 the demand on the system, the government programs  
15 and their effect on the costs of expanding service  
16 for one class or another may change over time.  
17 Hopefully, the data availability and the company's  
18 analyses of their information will get better over  
19 time as people ask questions and probe, and the  
20 utility says, "We can't answer that in two weeks or  
21 two months," but perhaps they can answer it in two  
22 years. And in fact, in Nova Scotia, we're going  
23 through this process now, where the utility didn't  
24 have information about what kinds of lines were  
25 connected to what kinds of poles, and they selected

1 a sample and they've sent their linemen out, and  
2 they're actually surveying what they have, so we'll  
3 have some real data to do cost allocation on,  
4 rather than speculation.

5 (14 h 50)

6 And in this process, it's not as if each  
7 idea comes up once and either it's accepted or it's  
8 rejected for all time or for decades, sometimes...  
9 and I've had this experience myself; in Utah, I  
10 think it took three or four cases in which we made  
11 the point that the allocation of some costs should  
12 be based on... actually, it was the connection  
13 costs should be based not on the number of  
14 customers, but on the actual number of connections  
15 and that Mobile Family Dwellings, for example,  
16 should not be paying for service for every  
17 customer. And it was sort of ignored by the  
18 regulator the first time, and the second time, it  
19 got a response: well, that's sort of interesting.  
20 And by the third time, staff started asking the  
21 utility the questions about it. And I think now,  
22 it's basically accepted, that that's the way it's  
23 going to be done. I was glad to see Gaz Métro just  
24 do that on their own, without having to have that  
25 kind of repeated prodding.

1           And it would be nice if all questions as  
2           arose could be answered definitively for all time,  
3           and first impression. But I think it's good that  
4           regulators are willing to let an idea sink in a  
5           little bit and think about it before they it a  
6           final thumbs up or thumbs down.

7           And in this situation, by the way, we have  
8           a lot of limits on Gaz Métro's data, questions  
9           about the quality of some of the information, how  
10          data was massaged, and it certainly would be useful  
11          to revisit the questions over time, and to have a  
12          chance to improve the parties' understanding, and  
13          hopefully Gaz Métro's own understanding of their  
14          data, leading eventually to fair cost allocations,  
15          and also perhaps more efficient rate design in the  
16          future. And hence, I really recommend that the cost  
17          allocation process continue past this hearing.

18          Just a couple of quick issues regarding  
19          mains. The first is for the supply mains, which are  
20          higher pressure. Their length is not really  
21          determined by customer number or by connection  
22          number; they're driven by the need to deliver large  
23          quantities of gas to regions. And every once in a  
24          while, there'll be, there are a few customers who  
25          either need the higher pressure for their

1 particular processes, or they just happen to be in  
2 a situation where it's less expensive to serve them  
3 off that line. But you're not, as far as I am  
4 aware, extending supply lines, primarily for the  
5 purpose of connecting additional customers. And so,  
6 really, they ought to be treated as demand related.

7 A second thought about the mains is that  
8 low pressure lines are, can be alternatives to high  
9 pressure lines, that if every customer required  
10 supply at the supply main volted, pressure, at two  
11 thousand nine hundred kiloPascals (2,900 kPa), it  
12 would be a much more expensive system, I'm sure,  
13 than the actual system, which allows the company to  
14 install lower pressure mains to serve most of the  
15 customers. So Mister Knecht's idea that you should  
16 charge everybody for the supply, and then charge  
17 another tranche of costs for perhaps seven hundred  
18 kPa (700 kPa) service, and another one for four  
19 hundred kPa (400 kPa) service, I think, misses the  
20 point, and may get the cost causality backwards,  
21 that often, lower pressure customers are saving you  
22 money by not requiring that you extend the high  
23 pressure line to them.

24 Other expenses are surprisingly important,  
25 for Gaz Métro. It's a large percentage of their



1 total costs, and a lot of that, of those costs, the  
2 company's proposing to allocate on the basis of  
3 customer count. And I think, again, we're seeing  
4 the tendency to use customer count as a dumping  
5 ground for costs that are maybe difficult to sort  
6 out among classes.

7 And I think many of the costs they treat  
8 this way are clearly related to the loads and  
9 revenues, to investment levels, and to other things  
10 that are not really customer related, and there are  
11 better allocators available, as I discuss in my  
12 evidence, and I will spare us all the detailed  
13 description of those.

14 But my recommendations in this proceeding  
15 are first of all to adopt the average cost  
16 classification of distribution mains, as I show in  
17 my table 1, and shown on the table above, and to  
18 allocate the supply mains on demand, although they  
19 could be lumped in with the distribution mains, and  
20 allocated as I show in my table 2.

21 (14 h 55)

22 Now when I say that I'm not suggesting that  
23 this is a best and final allocation, and there are  
24 questions about costs and about who really uses  
25 what kind of main, and I think that those questions

1 should remain opened for future investigation. But  
2 given the record in the case today, I think this is  
3 the best approach. And in section 4 of my  
4 testimony, I make recommendations regarding the  
5 allocation of a number of overhead and  
6 miscellaneous costs. I think that the Board should  
7 instruct Gaz Métro to adopt those. And then, in  
8 terms of where you go from here, there are a couple  
9 of specific items, that I think need additional  
10 analysis; the benefits for the distribution system  
11 of energy efficiency efforts and hence how much of  
12 the costs could be recovered across the board, as  
13 opposed to just the participating class, analysis  
14 of the cost of billing and meter reading by the  
15 type of meter and how it's read, and how often it's  
16 read, and how complicated the billing is.

17 Gaz Métro certainly should be encouraged to  
18 resolve or at least reduce the uncertainty and the  
19 confusions, perhaps, around their data. And the  
20 Board, I would urge to insure that there are  
21 opportunities for continuing to improve the  
22 methodology. And that concludes my presentation. My  
23 apologies on how long that took.

24 LE PRÉSIDENT:

25 Merci.

1 Me FRANKLIN S. GERTLER:

2 Q. [112] Thank you Mr. Chernick. Franklin Gertler, for  
3 la ROÉÉ. Mr. Chernick, can I just have a couple  
4 other questions or some clarifications and, you  
5 know, you can tell me that I, the Board understood  
6 perfectly, it's just me who doesn't understand, in  
7 which case, we'll skip them. But let me know. I  
8 wondered. I'm looking back at page 17, which is  
9 your equitable allocation of mains cost slide, with  
10 the table. And I wonder whether you just spend a  
11 couple of minutes more on that one, and to explain  
12 what it shows. And then, maybe, if you're able to,  
13 I don't really had a chance to look at all at the  
14 Excel spreadsheet that was undertaking ten, but you  
15 could explain how, I think, this is, how this  
16 relates to the, I think it's page 6 of mister  
17 Knecht's PowerPoint this morning, and the graph he  
18 shows there.

19 A. Okay. The table on slide 17, if we just look at  
20 distribution means, to keep things simple, Gaz  
21 Métro proposes that about seventy-one percent  
22 (71 %) be treated as access related. And that's  
23 based on a fiction that you're building a two inch  
24 main every place you have a main of any size, and  
25 that's all access. And...

1 Q. [113] Customer number in other words?

2 A. Customer number. Yes. Excuse me. We have been using  
3 multiple layers of terminology in English and in  
4 French, and that does cause a little confusion, at  
5 least for me. I'm sure everybody else is on top of  
6 all of the terminology. Actually, it would be  
7 connection number, just to, that Gaz Métro would  
8 use for allocating this seventy-one percent (71 %)   
9 of the cost.

10 For my more realistic planning based  
11 approach is if you assign to the, to access, and  
12 hence, mostly to small customers, all the small  
13 pipe that actually exist, two inches and smaller,  
14 plus enough capacity in the large pipes to carry  
15 all the demand that a two inch pipe would, priced  
16 and for those, the portion of those larger pipes  
17 that are treated as access related, price that at  
18 the average cost of capacity in the pipe, then you  
19 wind up allocating forty-two percent (42 %), based  
20 on the number of connections, forty-two percent  
21 (42 %) of the mains costs, down from seventy-one  
22 percent (71 %) in the company's proposal.

23 (15 h 01)

24 If you sort of go the other way from the  
25 company's approach, and the company basically says:

1 well, first, the access, we charge as access all  
2 the length of the system, and then, only the  
3 incremental cost above that as demand. If, for the  
4 larger pipes, you say: first, we allocate the costs  
5 on demand and only charge excess for the tiny  
6 increment at the margin to make a... sometimes you  
7 have to make a six inch pipe an eight inch pipe in  
8 order to carry enough gas for the smaller customers  
9 or for the access component. Then you wind up with  
10 just thirty-five percent (35%) being allocated to  
11 access. So the average cost is sort of a compromise  
12 between those two extremes of putting everything  
13 you can onto the access component, the connection,  
14 the customer number or, for the large pipes,  
15 putting only the incremental cost onto the access.

16 Q. [114] Okay. And just to make sure that I know  
17 because it's not labelled, am I right, this table  
18 is a synthesis and derives from the material you  
19 have in your evidence, I guess it's page 18 I think  
20 and on which are the tables 1 through 4?

21 A. Yes, it's a synthesis of the values. Actually the  
22 percentages are not reported in the tables because  
23 the tables were already too big but they are  
24 reported in the text alongside each table and  
25 they're the access related cost calculated in the

1 table divided by the total mains cost.

2 Q. [115] With the small corrections...

3 A. Yes.

4 Q. [116] ... that you mentioned at the beginning of  
5 your testimony.

6 A. Yes. That was a correction to an example that was,  
7 as I said, trying to simplify the job for the  
8 reader. Sometimes it works, sometimes it doesn't.

9 Q. [117] Now, can you relate what you've just  
10 presented to, what Mr. Knecht presented at page, I  
11 guess it's at slides 5 and 6 of his presentation,  
12 C-ACIG-0038. I don't think you have that. Do you  
13 have a copy of that presentation with you?

14 A. Yes, I do.

15 Q. [118] Okay.

16 A. But, as I understand, the critique that he draws  
17 from his figure, his critique of my methodology is  
18 that you have the same percentage of, or very close  
19 to the same percentage of the larger pipes being  
20 allocated to the larger customers, specifically D4,  
21 D5, regardless of the size of the pipe and his  
22 perspective was "Well, the smallest of the pipes in  
23 that range probably aren't serving the largest  
24 customers all that much and those percentages  
25 should vary."

1                   And he's showing the effects just on those  
2                   for each size of pipes so you don't see this kind  
3                   of composite, say the forty-two percent (42%) or  
4                   the thirty-five percent (35%) number because he's  
5                   showing you the numbers, the numbers he was  
6                   concentrating on were for the larger pipe size  
7                   where access, the access related cost is quite  
8                   small. And I think he has a point that if it were  
9                   really important for some reason to distinguish  
10                  between the portion of a four inch pipe that is  
11                  attributable to the D4, D5 customers as opposed to  
12                  a twelve inch pipe, then he's right, this is a  
13                  simplified approach in which pipe is dealt with,  
14                  basically, in two categories. There's the two  
15                  inches and under and everything larger and that's  
16                  how Gaz Métro treated it and I don't have any  
17                  information about how the other pipes are allocated  
18                  or used by different classes.

19                  But there's a group of D1 customers who are  
20                  larger than the minimum size, who are larger than  
21                  the thirty-six thousand five hundred cubic metres  
22                  (26,500 m<sup>3</sup>) a year and there's D3 and perhaps if  
23                  Mr. Knecht were really concerned about getting the  
24                  allocation between those customers and D4, D5  
25                  customers right, it would be appropriate to go in

1 and look at the extent to which those different  
2 classes use different sizes of pipe. And I have no  
3 objection to looking at that issue in the future  
4 but at the level of detail of most cost service  
5 studies, this is...

6 Q. [119] Cost allocation studies?

7 A. Cost allocation, cost of service study, cost  
8 allocation study, these are, that's more detail  
9 than people are usually concerned about that you  
10 don't usually get into that level of detail, of  
11 breaking down the system even into small pipe and  
12 large pipe, maybe you get to that level, but small  
13 pipe, medium, medium-large, large, very large, is  
14 not all that common.

15 (15 h 07)

16 I'm not saying it's a bad thing to do, but  
17 I'm not sure that it would have a big effect on  
18 what we're doing in this particular case, but it  
19 might have an effect on the relative allocations  
20 between the large D1, the D3, D4, and D5, and  
21 perhaps even within the D4/D5 subclasses. I must  
22 say, I have not tried to understand Gaz Métro's  
23 complete system of rate classes and what the  
24 distinctions are between all of them.

25 And it may be worth going into more detail,



1 but I guess I would summarize by saying that his  
2 critique of my analysis would be that it's not  
3 perfect in that it doesn't give you breakdowns for  
4 every class, but it really doesn't affect whether  
5 the split between access and demand, and between  
6 the smallest customers and... the bulk of the  
7 customers, but a small part of the demand, and  
8 everybody above, thirty-six five hundred (36,500),  
9 whether there's some problem with that.

10 So I think we can agree that the numbers  
11 are more or less what he says they are, but that  
12 they disagree about whether that has any relevance  
13 for this particular proceeding.

14 Q. [120] And in that, just so I understand... I don't  
15 want to belabour, but in that table at slide number  
16 6, he shows what he says are your mains' costs  
17 for... well, for steel, although I don't think it  
18 was just for steel, going across at around... those  
19 are the squares, at around sixty-eight thousand  
20 (68,000) as a share.

21 A. Yes.

22 Q. [121] And I'm wondering, what you had been able to  
23 look at it, is that number right or...

24 A. Well, there are a couple of adjustments that I  
25 haven't been able to follow through in detail, and

1 I think the answer may be lower, closer to sixty  
2 percent (60%), but I mean, he's right in the  
3 general trend. And if you don't look too carefully  
4 at the scale, and I would say I don't have any  
5 particular concern with his characterization of the  
6 pattern, but that it... again, it really doesn't  
7 matter for what we're doing right now.

8 Q. [122] Okay. One last thing. I think you mentioned  
9 the question of how the evidence here, and what  
10 you've learned about how the system of Gaz Métro  
11 actually expands, what the behaviour, what the  
12 planning and expansion system is, and you talked  
13 about there may be cases... because I think Mr.  
14 Overcast had talked a fair bit about, when we were  
15 saying, "Well, is the main built out... isn't it  
16 true that the main gets built out for a major  
17 industrial customer?" And he said, "Well, no, it  
18 could be built out for a small subdivision." And  
19 I'm just wondering -- maybe Mr. Schepper also has  
20 some things to say about this -- about how that  
21 kind of... that view lines up with what you know  
22 about how the system is expanded here for Gaz  
23 Métro.

24 A. I don't know that I have a really comprehensive  
25 view of why every main has been installed in the

1 last thirty-five (35) years, but of the cases that  
2 I've been able to get any information on, such as  
3 Thetford Mines, it seems pretty clear that the  
4 driving factor is the large customers, justifying  
5 expansion of the system over long areas to reach  
6 new load centres, especially a centre that's made  
7 up of a few very large customers. And I wouldn't be  
8 surprised if there are some mains that are built  
9 over shorter distances to pick up an existing load  
10 that wants to switch or even a new development of  
11 some sort, either industrial or possibly  
12 residential.

13 Q. [123] If they're heating with gas.

14 A. If they're going to heat with gas and they're going  
15 to be a large-enough load, or if they're very  
16 inexpensive to connect to.

17 (15 h 12)

18 And on a different system, perhaps it would  
19 be more common where one subdivision has been built  
20 right next to the next, and extending the line to  
21 connect to the equipment put in by the developer  
22 for one subdivision and then go up to the next one.  
23 That's a relatively small cost, and you have a high  
24 assurance that it's going to be developed, because  
25 every bit of farm land within site is being torn up

1 and turned into housing. There may be gas companies  
2 that have a different kind of approach, and some  
3 portion of their expansion is driven by that kind  
4 of new construction of gas-fired, gas-heated homes.  
5 I don't think that's a major component for Gaz  
6 Métro.

7 Me FRANKLIN S. GERTLER:

8 Okay. All right, that... ça fait la tour, Monsieur  
9 le Président, pour Monsieur Chernick. Alors, il  
10 serait disponible pour contre-interrogatoire.  
11 Merci.

12 LE PRÉSIDENT:

13 Merci Me Gertler. Thank you Mr. Chernick.

14 Me FRANKLIN S. GERTLER:

15 Mr. Schepper as well.

16 LE PRÉSIDENT:

17 Mr. Schepper. Il est déjà trois heures quinze  
18 (3h15) presque, Me Sigouin-Plasse, j'imagine que  
19 vous allez mettre à profit cette soirée sans hockey  
20 pour préparer vos questions.

21 Me HUGO SIGOUIN-PLASSE:

22 Je suivrai votre bon conseil, Monsieur le  
23 Président. Donc, oui, effectivement, si on pouvait  
24 contre-interroger demain ce serait apprécié.

25

R-3867-2013  
16 avril 2015

PANEL - ROÉÉ  
Interrogatoire  
- 165 - Me Franklin S. Gertler

1 LE PRÉSIDENT:

2 Oui, bien, de toute façon il se fait tard, donc on  
3 va lever l'assemblée pour aujourd'hui puis de  
4 retour demain à neuf heures (9 h 00). Merci  
5 beaucoup.

6

7 AJOURNEMENT DE L'AUDIENCE

8

9

1           SERMENT D'OFFICE

2

3           Nous, soussignés, JEAN LAROSE, et CLAUDE MORIN,  
4           sténographes officiels, dûment assermentés,  
5           certifions sous notre serment d'office que les  
6           pages qui précèdent sont et contiennent la  
7           transcription fidèle et exacte des témoignages et  
8           plaidoiries en l'instance, le tout, conformément à  
9           la Loi.

10          Et nous avons signé,

11

12

13

14

15          JEAN LAROSE

16

17

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19

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21

22          CLAUDE MORIN

23