

**RÉGIE DE L'ÉNERGIE**

AUDIENCE CONCERNANT LA DEMANDE RELATIVE  
À L'ÉTABLISSEMENT DES TARIFS D'ÉLECTRICITÉ  
DE L'ANNÉE TARIFAIRE 2018-2019 - MÉCANISME  
DE RÉGLEMENTATION INCITATIVE

DOSSIER : R-4011-2017

RÉGISSEURS : Me LISE DUQUETTE, présidente  
Mme DIANE JEAN,  
M. BERNARD HOULE

AUDIENCE DU 9 FÉVRIER 2018

VOLUME 14

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LISTE DES ENGAGEMENTS

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LISTE DES PIÈCES

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C-AQCIE-CIFQ-0057: Présentation du Dr. Mark Newton  
Lowry

9

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1 L'AN DEUX MILLE DIX-HUIT (2018), ce neuvième (9e)  
2 jour du mois de février :

3

4 PRÉLIMINAIRES

5

6 LA GREFFIÈRE :

7 Protocole d'ouverture. Audience du neuf (9) février  
8 deux mille dix-huit (2018), dossier R-4011-2017.  
9 Audience concernant la demande relative à  
10 l'établissement des tarifs d'électricité de l'année  
11 tarifaire 2018-2019 - Mécanisme de réglementation  
12 incitative. Poursuite de l'audience.

13 LA PRÉSIDENTE :

14 Alors, rebonjour tout le monde. Alors, je suis  
15 contente de voir que tous les objets perdus ont  
16 retrouvé leur propriétaire parce qu'hier on avait  
17 retrouvé un ordinateur, on ne savait pas c'était à  
18 qui pour commencer.

19 Me GUY SARAULT :

20 Il y en a deux.

21 LA PRÉSIDENTE :

22 Ah! Juste un instant. Monsieur Lowry n'a pas... il  
23 y a quelqu'un qui a besoin d'écouteurs pour le  
24 témoin. Merci, Madame la Greffière. Ça ne sera pas  
25 long. Et puis vous aurez remarqué que nos

1 sténographes ont fait d'immenses efforts. Vous avez  
2 déjà la première copie des notes sténographiques.

3 Me GUY SARAULT :

4 Bien oui.

5 LA PRÉSIDENTE :

6 Alors, merci beaucoup.

7 Me GUY SARAULT :

8 C'est très apprécié.

9 LA PRÉSIDENTE :

10 La cavalerie arrive, Maître Allard, ne vous en  
11 faites pas. Alors, Maître Sarault, ça va être à  
12 vous.

13 PREUVE DE L'AQCIÉ-CIFQ

14 Me GUY SARAULT :

15 Alors, bonjour, Mesdames les Présidentes et  
16 monsieur le Régisseur Houle. D'abord, je tiens à  
17 remercier la formation de nous avoir accommodé pour  
18 commencer à huit heures trente (8 h 30) ce matin de  
19 façon à pouvoir présenter la preuve du docteur  
20 Lowry en une seule étape. Alors, ça nous accommode  
21 beaucoup, on est bien content. Alors, on va  
22 assermenter le témoin qui a déjà été reconnu comme  
23 expert dans la phase 1, évidemment, du dossier du  
24 MRI.

25

---

1 IN THE YEAR TWO THOUSAND EIGHTEEN (2018), this  
2 ninth (9th) day of January, personally came and  
3 appeared:

4

5 MARK NEWTON LOWRY, president of PEG, having  
6 business operations at 44, East Mifflin Street,  
7 Madison, Wisconsin (USA 53703)

8

9 WHOM, having made a solemn declaration, doth depose  
10 and say as follows:

11

12 (8 h 34)

13 EXAMINED BY Me GUY SARAULT :

14 A. **[1]** Doctor Lowry, you're here to appear expert  
15 witness on behalf of all the interveners and I want  
16 to stress that, event though your services were  
17 contracted officially with AQCIE and CIFQ. And I  
18 think a lot of the documentary evidence has been  
19 filed into the record up to this date, and I think  
20 the most important element is Exhibit C-AQCIE-CIFQ-  
21 0032, which is the corrected errata version of your  
22 expert report, and the corrected version is dated  
23 January eleven (11), two thousand and eighteen  
24 (2018), and I believe it pertains to correct typos,  
25 and other mistakes that were found in the earlier

1 version, is that correct?

2 A. That's correct.

3 Q. [2] So, you adopt the corrected version as  
4 constituting your evidence in this case?

5 A. Yes, I do.

6 Q. [3] And in addition to that, and unless the  
7 formation, the bench asks me to go through the  
8 entire list, you've answered a number of  
9 information requests which have all been filed into  
10 the record, and you adopt them as completing your  
11 evidence in this case?

12 A. Yes, I do.

13 Q. [4] Thank you. And in addition to that, I believe  
14 that you have a PowerPoint presentation?

15 A. That's correct.

16 Q. [5] Okay, which I will give to the Court clerk.

17 LA GREFFIÈRE :

18 Nous allons coter cette pièce C-AQCIE-CIFQ-0057.

19

20 C-AQCIE-CIFQ-0057: Présentation du Dr. Mark Newton

21 Lowry

22

23 Me GUY SARAULT:

24 Q. [6] So, unless you have additional corrections to  
25 bring to the documentary evidence that was filed

1 into the record prior to the hearing, and I do not  
2 believe it's the case...

3 A. That's correct.

4 Q. [7] Okay, I will ask you to go ahead and present  
5 your PowerPoint presentation.

6 A. Okay, Well, it's a real pleasure to be back in  
7 Montreal today. I've always wanted to see the city  
8 in the dead of winter, and it is fun, it's an  
9 experience.

10 So, the reason we're all here for this  
11 hearing is to finalize some of the steps, some of  
12 the key provisions of the new *mécanisme de*  
13 *réglementation incitatif* for Hydro-Québec  
14 Distribution. The Régie resolved many of the most  
15 important issues in their April proceeding of last  
16 year, but a number of other issues remain to be  
17 resolved and in this particular hearing, the focus  
18 is really on the revenue escalation mechanism,  
19 which includes most importantly the revenue cap  
20 index, which has inflation measures, an X Factor,  
21 and an S Factor, and that breaking the X and S into  
22 two pieces is a little different from the way it's  
23 done in North America, but it's just to be  
24 understood as we go forward in this discussion.  
25 We're talking about X Factor as the Régie defines

1 it as something more like an appropriate base  
2 productivity growth target.

3 There are also Y Factor and Z Factor issues  
4 to consider, and so in this presentation, which  
5 should go about an hour and twenty minutes, I will  
6 talk about my views of these matters, focussing  
7 mostly on the X Factor issue because that is the  
8 issue where HQD and consumer groups are furthest  
9 apart.

10 So, the Régie ruled in the April decision  
11 that the Factor X in the revenue cap index should  
12 be based on *jugement* after reviewing recent  
13 multifactor productivity studies and proceedings on  
14 same. So, I reviewed this evidence and conclude  
15 from my review that a zero point three o percent  
16 (0.30%) X Factor is appropriate for Hydro-Québec  
17 Distribution.

18 So, in starting to explain why I chose that  
19 number, I, first of all, am going to talk about  
20 evidence that suggests a number right around point  
21 three (0.3) makes sense, and then I will consider  
22 as well some evidence that the number should be a  
23 lot higher, and that it should be somewhat lower.

24 So, let's talk about the conditions that  
25 suggest that the X should be around zero point

1 three percent (0.3%).

2 (8 h 40)

3 In my opinion, the best available study on  
4 which to base an X Factor for Hydro-Québec  
5 Distribution is my recently published study for  
6 Lawrence Berkeley National Laboratory, which a unit  
7 of the United States Department of Energy. And in  
8 that study, I indicated that a zero point three  
9 nine percent (0.39%) power distribution  
10 productivity trend is the average for a large  
11 sample of US power distributors.

12 Now, in my own work, I am inclined to  
13 customize X Factors to consider local business  
14 conditions, if warranted. For example, in Alberta,  
15 I advocated a higher X Factor because of the rapid  
16 growth of the Alberta economy, which created  
17 opportunities for scale economies.

18 However, in this case, my appraisal of  
19 Hydro-Québec distribution does not indicate that  
20 there's really anything special about the service  
21 territory that would prohibit the use of a national  
22 productivity trend estimate for the United States.  
23 Among other things, recent estimates of  
24 productivity growth in the adjacent portion of the  
25 United States is not that much different from the

1 national average.

2 Other pertinent results include the fact  
3 that the Alberta Utilities Commission recently  
4 chose a zero point three percent (0.3%) X Factor  
5 for both power and gas distributors. And note that  
6 this did include a stretch factor, so Mr. Coyne  
7 probably isn't too far from the mark when he sort  
8 of said, well, implicitly, maybe that means zero  
9 point one percent (0.1%) base productivity trend in  
10 the judgment of that Commission.

11 The Ontario Commission recently chose a  
12 zero percent (0%) X Factor, as we're defining it  
13 here, for power distributors and also, recently,  
14 the same judgment for the Hydro Electric generation  
15 services of Ontario Power generation.

16 In addition to this, I think it's pertinent  
17 that six Canadian Utilities have recently proposed  
18 X Factors of zero percent (0%) or higher. Now, here  
19 are some conditions that maybe suggest that the X  
20 Factor should be somewhat higher.

21 One is that, not that long ago, the BC  
22 Commission chose a zero point nine three percent  
23 (0.93%) X Factor for a revenue cap index for Fortis  
24 BC, which used to be called West Kootenay Power,  
25 and this was to apply to a revenue cap. It's also



1 treatment of input prices is likely to  
2 overcompensate Hydro-Québec Distribution if it does  
3 anything, because what's been done is to take the  
4 two most rapidly growing categories of inflation  
5 drivers and giving them special treatment. And  
6 then, the rest of the costs are supposed to be  
7 addressed by the IPC Québec, but the IPC Québec is  
8 very sensitive to labour prices because the economy  
9 of Québec, like the economy of all of North  
10 America, is very labour-intensive relative to a  
11 company like Hydro-Québec Distribution. As well,  
12 the IPC Québec would reflect a growth in the cost  
13 of capital, in other words, interest rates and  
14 higher returns on equity as well, in my opinion.  
15 (8 h 45)

16 Another factor that cuts in favour of  
17 Hydro-Québec is the Z Factor system. Because the Z  
18 Factors are much more likely to be used to give the  
19 company more money than it is to be used to give  
20 the company less money. The company has an  
21 incentive to point out every time it is entitled to  
22 extra money through the Z Factor system. It has  
23 much less incentive to report a need to reduce its  
24 revenue because of some lucky break that it has  
25 incurred. And the consumers are... interests are

1 much less likely to know when to press this case.

2 As well, it should be remembered that let's  
3 suppose that a Z Factor is partly compensating the  
4 company for higher capital expenditures resulting  
5 from a *panne majeure* or from a highway relocation  
6 initiative something like that; and it has to be  
7 understood that those types of capital expenditures  
8 are occasionally incurred by the companies in the  
9 productivity sample. So, when the company is given  
10 extra money because of something like a *panne*  
11 *majeure* it's essentially a matter of double  
12 counting. They're gonna get eventually paid twice  
13 for the same kinds of expenditures. So, all of  
14 these things suggest that the X Factor should, if  
15 anything, be higher than zero point three percent  
16 (0.3 %).

17 Now, what about circumstances that might  
18 suggest that the X factor should be lower? Well one  
19 is the fact that the growth factor that the Régie  
20 has decided on is zero point seven five (0.75)  
21 times growth in the number of customers.

22 Now, this could be an argument for reducing  
23 the X Factor from zero point three (0.3) by  
24 something like point seven five (0.75) times  
25 customer growth, which might be twenty (20) basis

1 points. But in my opinion, those considerations  
2 that I mentioned at the end of the previous slide,  
3 more than cover that concern, so that there is no  
4 need for that adjustment.

5 It should also be noted and I don't think  
6 that the Régie should ignore the fact that there  
7 was a recent study submitted in Ontario providing a  
8 preliminary estimate of zero point nine percent  
9 (0.9 %) trend in the multifactor productivity of  
10 Ontario Power Distributors. I don't think it should  
11 ignore this number, but I think it should put  
12 asterisk by it for a number of reasons.

13 Now, this study was prepared by a former  
14 Masters level worker at my company and it was  
15 basically a gratuitous submission because he was  
16 actually retained by the Hydro One, to provide a  
17 benchmarking study and he sort of threw in this  
18 preliminary productivity estimate for free. This  
19 particular study has not been vetted. We are  
20 representing the Ontario Energy Board staff in this  
21 proceeding and the working papers for his work have  
22 never even been distributed to us. But it is also  
23 of note that Pacific Economics Group is the group  
24 that estimates for the Ontario Energy Board the  
25 multifactor productivity trend of Ontario

1 Distributors. We haven't done it for a few years,  
2 but we have a number of concerns about how you  
3 would measure this going forward.

4 Now, one thing to remember about Mr.  
5 Fenrick's methodology, which is pretty much the one  
6 that Pacific Economics Group developed several  
7 years ago for use in price cap regulation, is that  
8 the output index doesn't just grow by the number of  
9 customers, it also grows by volumes and peak  
10 demand. And if you were to replace that result with  
11 just the growth and the number of customers, you  
12 would reduce the estimate right away by thirty-four  
13 (34) basis points which is already putting you down  
14 to negative fifty-six (-56) basis points.

15 But additionally, we are very concerned  
16 about recent change in accounting standards for  
17 most distributors in Ontario that seem to slow  
18 their O&M productivity growth materially. In fact,  
19 this was the reason why the last year of our last  
20 productivity study was disregarded by the  
21 Commission in setting the zero percent (0 %)  
22 X Factor for the companies.

23 (8 h 50)

24 I should also note, although this doesn't  
25 really speak to a higher or a lower number, that

1 the capital cost data available to estimate  
2 productivity trends in Ontario is very poor. It's  
3 much... nowhere near as good as American data.  
4 Nonetheless, it has been the policy of the  
5 Commission that they wanted to have their own  
6 productivity estimates, so we're happy to oblige,  
7 but the accuracy of them is not the same as the  
8 accuracy of American data.

9 Now, there are also some irrelevant  
10 considerations based on my experience in this  
11 field. I feel that there is other recent evidence  
12 that ostensibly supports the theory of negative  
13 productivity trend that is based on a seriously  
14 flawed PMF methodologies, and I don't think that  
15 this can be ignored in this process of *the*  
16 *jugement*.

17 Not only is it really part of the process  
18 of *jugement*, I mean, we're not talking here about  
19 getting into all the gory details of a productivity  
20 study, just some of the highest level concerns.  
21 But also, for the Régie to responsibly oversee the  
22 productivity study that HQD is going to prepare, I  
23 believe that they need to know soon some of the  
24 highest level issues in order to guide them to a  
25 study that is satisfactory for the Régie's needs.

1                   I should also note yesterday that Mr. Coyne  
2                   stated that this process of *jugement* should  
3                   consider and include the consideration of the  
4                   shortcomings of TFP studies, and that's exactly  
5                   what I propose to do in the next few minutes.

6                   Now, before we go forward, I think it would  
7                   be appropriate to talk a little bit about the  
8                   credentials of the witnesses that have recently  
9                   been providing productivity evidence. And if you  
10                  look at this, even a casual inspection would reveal  
11                  that I have done many many more of these studies,  
12                  and testified to them than any of the recent  
13                  witnesses for the utilities. I have done these  
14                  studies, moreover, not just for consumer groups.  
15                  Actually, the great majority of the studies that  
16                  I've ever done have been for utilities, twenty-five  
17                  for utilities, including two in ongoing proceedings  
18                  in American jurisdictions right now.

19                  Now, in contrast to these, I would note  
20                  that all three of the witnesses who have recently  
21                  advocated negative X Factors have little energy  
22                  utility productivity experience and have worked  
23                  exclusively for utilities on energy utility  
24                  productivity issues.

25                  Now, my point in saying this is not to

1       disregard, or suggest that you disregard all of the  
2       contributions of other witnesses, but do take  
3       seriously the critique of their work that I'm about  
4       to present.

5               Let's start then by talking a little bit  
6       about the basics of productivity research. A  
7       productivity index is an index where its growth is  
8       the difference between the growth in scale, the  
9       operating scale of the company, and growth in the  
10      inputs of the company. Now, a lot of different  
11      types of indexes qualify as productivity indexes,  
12      and in fact, there's nothing the matter with having  
13      diverse methods because there are diverse uses for  
14      productivity indexes, just as there are diverse  
15      uses for inflation measures.

16             And let me just give you some examples to  
17      get you comfortable with the concept that there are  
18      different kinds of productivity indexes for  
19      different purposes. Some people might be interested  
20      in the productivity of capital; others might be  
21      interested in the productivity of the *charges*  
22      *d'exploitation* inputs; some might be interested in  
23      multi-factor productivity. As well, you could do a  
24      study of the productivity of utilities in providing  
25      only distribution services, or you could consider

1 their productivity in not only providing  
2 distribution services, but also the SALC types of  
3 services that Hydro-Québec distribution provides.  
4 (8 h 55)

5 Some people are interested in the  
6 efficiency of utilities just in containing their  
7 costs, and others are interested in also  
8 considering the efficiency of utilities in doing  
9 marketing.

10 And finally, some people are interested in  
11 using productivity results to calibrate a revenue  
12 cap index, such as has been agreed to here and some  
13 might be interested in having it for a price cap  
14 index. So, the moral of the story is that  
15 productivity methods that are used in a study  
16 should be appropriate for the use of the  
17 productivity indexes. And as it happens when you  
18 try to apply this principle for a research on X  
19 Factor calibration, the main issues are how you  
20 measure the scale of the utility and how you  
21 measure the utility's capital quantity.

22 Now, in my opinion, the Brattle and  
23 Christensen studies which Concentric cites in its  
24 survey, are based on a flawed methodology by Dr.  
25 Jeffrey Makhholm of National Economic Research

1 Associates. I've been critical of this methodology  
2 for many years, and I don't have... and it would  
3 take me the better part of an hour to explain all  
4 the things that are wrong with this very sloppy and  
5 inaccurate method for measuring productivity.

6 But I'm going to just focus here on a few  
7 of the bigger problems. And just so that you don't  
8 think that this is all just my opinion, there is  
9 the matter of the labour quantity treatment which I  
10 criticized in the first Alberta proceeding, and Dr.  
11 Makholm agreed... yes, I guess I did make a  
12 mistake, and we'll change that.

13 Well, then, it turned out in the second  
14 Alberta proceeding that Christensen Associates  
15 found another problem with the labour quantity  
16 treatment, and all of the Christensen work has a  
17 correction for the second error made by Dr.  
18 Makholm.

19 Now, this doesn't fall under the category  
20 of an error, but it should be noted that the  
21 Makholm method focusses only on the distribution  
22 services of utilities, and ignores the SALC  
23 services that are oftentimes the subject of some of  
24 the most rapid productivity growth. That made sense  
25 in the context of Alberta because the Alberta

1 utilities don't provide a lot of the customer  
2 services, those are done by independent parties in  
3 Alberta.

4 But here in Québec, of course, they are  
5 provided by HQD. I will also note that the Makholm  
6 study uses an entirely volumetric output index  
7 consisting of an average of the trends in  
8 residential, commercial, and industrial delivery  
9 volumes, and that this is an inappropriate scale  
10 index for a study for HQD.

11 Nextly, Dr. Makholm, unlike many people or  
12 Statistique Canada that routinely use the geometric  
13 decay approach to capital cost measurement, uses a  
14 simple one-hoss shay approach. Now, there's a big  
15 debate about one-hoss shay versus geometric decay,  
16 and all the details of that debate are not  
17 appropriate to talk about in Phase 3 of this  
18 proceeding. But there's one thing that we can all  
19 get our arms around as a problem with the one-hoss  
20 shay, and that is its sensitivity to the assumption  
21 about the average service life of the assets. Dr.  
22 Makholm's service life assumption is poorly  
23 substantiated, and unreasonably low and, as I will  
24 come to show, it has a very large impact on  
25 results.

1                   So, let's talk for a moment about why  
2 service life matters in a one-hoss shay study,  
3 going to my page 9. Under the one-hoss shay  
4 treatment of the capital quantity, the capital  
5 quantity in each year is the sum of the quantity at  
6 the end of the prior year, plus the quantity of  
7 additions, and minus the quantity of retirements.

8                   Now, United States power distributors do  
9 not report data on the quantities of capital that  
10 they own. What they present is data on the value of  
11 the planned additions, retirements, and so on, and  
12 therefore it's necessary to deflate these using a  
13 construction cost index.

14                   Now, in the geometric decay approach, all  
15 you need to calculate is the additions, and that's  
16 easy-peasy to do because you just take the value of  
17 additions, divide it by the current value of the  
18 construction cost index. But what do you do about  
19 retirements. The quantity of retirements is the  
20 ratio of the value of retirements to the value of  
21 the construction cost index in what year.

22                   (9 h 00)

23                   It's a guesstimate because the companies do  
24 not provide any information about this. And so, the  
25 longer the average service life, the larger is X K

1 retirements and the faster productivity growth. And  
2 so unfortunately with this approach to measuring  
3 productivity, the average service life becomes a  
4 fudge factor that can produce a wide range of PMF  
5 results.

6 So, now I have you on the edge of your  
7 seats to know what was the average service life  
8 assumption that Dr. Makholm made. Well, in the  
9 Makholm study as in the Brattle and Christensen  
10 study, the assumption is thirty-three (33) years.  
11 Again, I'll say that again, thirty-three (33)  
12 years. What is Hydro-Québec reported average  
13 service life in its latest *dossier tarifaire*, it is  
14 thirty-nine (39) years and that includes  
15 intellectual property and tangible plant. I believe  
16 that isn't considered in Makholm study, so we're  
17 really believe the analogous figure for Hydro-  
18 Québec Distribution is forty (40) years.

19 Now, this might not matter if the average  
20 service life assumption didn't really have, make  
21 much of a difference in the productivity  
22 calculations. But what I showed in testimony in  
23 Alberta is how much this really matter. And so I  
24 will ask you to spend a little bit of time looking  
25 at a table in which I reconciled all the steps that

1 you would have to take to get from Brattle's  
2 reported numbers on productivity to the number that  
3 I testified to in that proceeding.

4 Now, first of all, there are numbers of  
5 simple errors that they made in their calculations.  
6 I wouldn't think of them as boneheaded errors that  
7 already get you from a negative point seven one  
8 (-71) to a negative zero point one two (-0.12).  
9 But now, we are just going to assume instead of the  
10 thirty-three (33) year average service life, a  
11 thirty-seven (37) year average service life and as  
12 you can see you get a very large acceleration in  
13 the productivity due to that adjustment alone and  
14 again to remember that Hydro-Québec has an average  
15 service life more like forty (40) years. So, it  
16 really does make an enormous difference.

17 Now, also note that once we've corrected  
18 for all of these mistakes, in other words, an  
19 incorrectly done one-hoss shay study, there still  
20 is a pretty good size slow down in productivity  
21 since for the full sample period, it was at one six  
22 two (162) and now its down for a more recent and  
23 relevant period to zero point four nine (0.49).

24 And now, I'm going to return to discussing  
25 why it is that there is that decline in

1 productivity. Now, an asterisk could be put behind  
2 the evidence that I just presented, if it was the  
3 case that the Alberta Commission had considered  
4 that evidence, but decided that they didn't agree  
5 with it, they weren't impressed with it or  
6 something like that. In reality, the Alberta  
7 Commission is kind of corky and they're very quick  
8 to throw out evidence for various reasons. And in  
9 this particular case, this evidence was in my  
10 rebuttal testimony which was issued just days  
11 before the oral hearing. No one asked my company  
12 for working papers, so we didn't release working  
13 papers and nonetheless, the Alberta Commission used  
14 that as an excuse not to consider that evidence at  
15 all. That very damaging evidence was not even  
16 considered. It was not rejected by the Commission,  
17 it was just never considered. Now remember...

18 (9 h 04)

19 Me JEAN-OLIVIER TREMBLAY :

20 Je m'excuse d'interrompre. I'm sorry Doctor Lowry.  
21 Je vais formuler une objection à ce stade-ci,  
22 Madame la Présidente. Parce que je pense que nous  
23 glissons dangereusement vers deux écueils dans le  
24 présent dossier. Et ce sont deux écueils, appelons  
25 ça deux sujets, qui ne font pas partie, et c'est ce

1 que je vous soumetts, de l'étude que nous faisons  
2 dans la présente audience. Alors, ici, on a un  
3 participant aux audiences devant la Commission de  
4 l'Alberta (l'AUC) qui vient témoigner sur les...  
5 qui vient témoigner sur son propre témoignage, qui  
6 vient apporter des justifications sur les résultats  
7 de la décision. Alors, je pense que, un, ce n'est  
8 pas admissible en preuve.

9 On va prendre la... Tout le... En anglais,  
10 on dit le « evidence cherry record ». Toute la  
11 preuve devant la Commission de l'Alberta n'est pas  
12 en preuve ici. Et je pense que c'est inadmissible  
13 pour un témoin de venir comme ça commenter les  
14 études, la preuve. Alors, ça, c'est un. Je pense  
15 qu'il y a un problème ici d'admissibilité. Et tout  
16 ce qu'on entend sur -c'est le deuxième sujet- les  
17 détails des études. Nous avons écrit une lettre  
18 avant l'audience pour dire que, bien, on n'a pas  
19 d'objection à ce qu'on parle de ces méthodes de  
20 calcul des coûts du capital, comme en anglais le  
21 « one-hoss shay » ou le « geometric decay » dans la  
22 mesure où ça permet d'avoir une vue d'ensemble.

23 Ici, je vous soumetts respectueusement qu'on  
24 a dépassé la vue d'ensemble. Ici, on est à refaire  
25 un débat quant à savoir, bon, bien, telle étude

1 spécifique aurait des défauts au niveau de  
2 l'utilisation de telle méthode de calcul des coûts  
3 du capital. On va dans le fin détail. Et je  
4 comprends que ce sont les convictions très  
5 profondes du docteur Lowry, et je respecte cela.  
6 Mais je pense qu'on est rendu maintenant très loin  
7 de l'approche du jugement qui a été déterminé par  
8 la Régie pour fixer le facteur X.

9           Présenter des études? Oui. Mais aller dans  
10 le fin détail des critiques à ce point-là? Je pense  
11 qu'on est sorti du dossier. Je ne vois pas  
12 l'utilité pour vous, parce qu'on est en train de  
13 refaire tout ce litige qui a pu avoir lieu dans  
14 chaque dossier, mais sans que les autres, par  
15 ailleurs, auteurs des études n'aient pu s'exprimer.  
16 Déjà valeur probante très, très faible.

17           Alors, c'est mon objection à deux volets  
18 que je voulais formuler. Je m'excuse d'avoir  
19 interrompu.

20 Me GUY SARAULT :

21 Écoutez, j'étais ici quand docteur Coyne a  
22 témoigné. Et il a rapporté, comme autorité au  
23 soutien de sa recommandation pour le facteur X, des  
24 études qui ont été présentées dans d'autres  
25 juridictions, notamment en Alberta. Et il ne s'est

1 pas gêné pour critiquer dans le fin détail la  
2 preuve qui avait été présentée en Alberta par le  
3 docteur Lowry. Alors, je pense que ça serait très  
4 inéquitable à l'endroit du docteur Lowry de ne pas  
5 lui permettre de remettre les pendules à l'heure et  
6 de souligner les erreurs méthodologiques qui  
7 pouvaient affecter les études qui ont été retenues  
8 par le docteur Coyne et qu'il utilise pour soutenir  
9 un facteur X négatif.

10 Je pense qu'on est au centre de la règle  
11 audi alteram partem entre experts. Et je pense que  
12 de souligner des erreurs méthodologiques dans des  
13 études dont l'expert d'Hydro-Québec se sert pour  
14 appuyer sa recommandation, c'est de bonne guerre  
15 entre experts. Parce que si, effectivement, il y a  
16 des erreurs méthodologiques là-dedans, ça vient  
17 miner la valeur probante de ces autorités-là qui  
18 nous sont présentées comme étant la bible à suivre  
19 pour conclure que, aujourd'hui en deux mille dix-  
20 huit (2018), la saveur du jour, c'est des facteurs  
21 de productivité qui sont négatifs.

22 Dans ces circonstances-là, je pense que  
23 l'équité la plus fondamentale envers le docteur  
24 Lowry, c'est de l'écouter. En plus de ça qu'on  
25 parle de « judgment », d'un jugement. On dit bien

1 « informed judgment ». Alors, encore faut-il que  
2 les sources d'informations à la source de  
3 l'exercice du jugement que va poser la Régie sur le  
4 facteur X reposent sur des sources qui sont  
5 crédibles et fiables. Et c'est un peu ça que le  
6 docteur Lowry est en train de présenter. Alors, je  
7 pense que c'est fondamental. Ça va à la base même  
8 des sources qui sont utilisées par le docteur Coyne  
9 pour sa recommandation. Alors ça c'est ma réponse  
10 à l'objection.

11 (9 h 09)

12 Et, avant de poursuivre, j'ai... il y a un  
13 gros oubli, et je m'excuse auprès de mes clients,  
14 ils sont représentés par un très mauvais avocat,  
15 j'ai fait assermenter le docteur Lowry et je n'ai  
16 pas fait assermenter maître Allard et Pierre  
17 Vézina. Alors, je pense qu'on pourrait peut-être  
18 profiter de l'occasion pour le faire, avant de  
19 l'oublier.

20 Me JOCELYN B. ALLARD :

21 R. J'ai présumé que j'étais sous mon serment d'office,  
22 Monsieur le Président.

23 LA PRÉSIDENTE :

24 Q. **[8]** Ça ne couvre pas monsieur Vézina. Mais, juste  
25 avant, je pense que lorsqu'on sera rendu à la fin,

1 peut-être, du témoignage de monsieur Lowry,  
2 avant... on fera l'assermentation à ce moment-là.

3 Me GUY SARAULT :

4 Avant de l'oublier.

5 LA PRÉSIDENTE :

6 C'est ça. Pas de problème. Maître Turmel?

7 Me ANDRÉ TURMEL :

8 Bien, vous me permettrez d'intervenir sur  
9 l'objection de mon confrère d'Hydro-Québec parce  
10 que, comme on l'a dit d'entrée de jeu, les témoins  
11 sont également des témoins des intervenants en  
12 général, des autres, pas seulement de l'AQCIE. Et  
13 pour avoir, évidemment, interrogé monsieur Coyne  
14 hier, justement sur les différences entre la  
15 décision de l'Alberta, deux mille douze (2012),  
16 deux mille seize (2016), et effectivement qu'il  
17 commentait sur les forces détails de cette  
18 décision-là et là, aujourd'hui, on a un  
19 protagoniste qui était à l'intérieur. L'empêcher de  
20 témoigner, ça serait... je ne vois aucun fondement  
21 à l'objection de mon confrère, il était là. Alors,  
22 on est dans le contraire du oui-dire, on a le  
23 témoin qui peut nous dire un peu qu'est-ce qui  
24 s'est passé et nous expliquer quels sont les grands  
25 principes et les réalités qui ont été décidées à ce

1 moment-là. Donc, moi aussi, je m'objecte vraiment à  
2 cette... je m'oppose à cette objection qui  
3 m'apparaît non fondée, parce qu'on va dans le creux  
4 du détail. Merci.

5 Me JEAN-OLIVIER TREMBLAY :

6 Est-ce que vous me permettez un mot supplémentaire,  
7 ça ne sera pas très long?

8 Je pense que la nuance essentielle à  
9 souligner c'était que les propos de monsieur Coyne  
10 d'hier portaient sur les décisions des tribunaux  
11 administratifs qui ont rendu... bien, qui ont  
12 apprécié l'ensemble de ces études. Et je pense que  
13 c'est ça le témoignage de monsieur Coyne, je pense  
14 que ça représente bien ce qu'il a dit. Il propose à  
15 la Régie de faire... d'utiliser ces décisions,  
16 comment ces études-là ont été soupesées par les  
17 décideurs. Alors, je maintiens que de refaire...  
18 parce que c'est ça qu'on fait ici, refaire les  
19 débats, reparler des témoignages qui ont eu lieu  
20 alors que ça a été décidé par des commissions après  
21 études sérieuses, ce n'est pas admissible en  
22 preuve.

23 LA PRÉSIDENTE :

24 Alors, là-dessus, ce que je peux vous dire, la  
25 Régie va rejeter l'objection. D'une part, ce que

1 j'ai retenu du témoignage de monsieur Coyne c'est  
2 qu'il nous a dit de pas « second guesser » les  
3 experts et de... et lui fonde son propre facteur X  
4 sur les experts plutôt que sur les décisions, hein,  
5 sa planche 4 par rapport à planche 7. Alors, je  
6 pense que déjà que de pouvoir avoir des  
7 commentaires supplémentaires sur les expertises  
8 données, sur lesquelles le jugement de votre expert  
9 est basé, est utile. Je suis assez d'accord avec  
10 les intervenants que, pour avoir une décision... un  
11 jugement informé, bien, il faut être informé.  
12 Alors... et ce que le docteur Lowry donne, c'est du  
13 contexte. Je ne pense pas qu'on refasse le litige  
14 mais il donne une couleur au litige ou, enfin, aux  
15 propositions qui ont été faites et sur laquelle la  
16 proposition d'Hydro-Québec a été donnée. Alors, je  
17 pense que ça donne tout simplement des éléments de  
18 contexte à la décision. Alors, je vais permettre à  
19 monsieur Lowry de continuer.

20 (9 h 13)

21 A. Thank you. Before we leave the topic of the average  
22 service life, I would also like to point out some  
23 numbers that we gathered in response to a data  
24 request that we recently submitted.

25 Well, we went on and we just tried to grab

1 as many estimates of average service lives from  
2 utilities as we could find in a reasonable amount  
3 of time, and what we, in fact, found is that for  
4 the distribution services that are the focus of Dr.  
5 Makholm's study, that the average service life for  
6 these sample utilities is actually forty-seven (47)  
7 years. Forty-seven (47) years.

8 Okay, now let's move on to the matter of  
9 the output specification.

10 LA PRÉSIDENTE :

11 I'm sorry, I will stop you just for...

12 A. Yes.

13 Q. **[9]** Is that table that you just provided is in your  
14 testimony? Could you just... because I can't read  
15 it.

16 A. Oh, that little one, with the little numbers?

17 Q. **[10]** Yes.

18 A. I apologize.

19 Q. **[11]** Because it's not in your testimony, I would  
20 ask you to provide us with a bigger number, because  
21 this is probably... I can't read that.

22 A. We'll do what we can. It's in the data request  
23 responses, but we'll do what we can to pick that  
24 up.

25 Q. **[12]** Okay. If it's there, it's there, I just wanted

1 to make sure. Thank you.

2 A. Alright, so moving on to the output specifications.

3 The output specifications used in productivity  
4 studies for X Factor calibration have been evolving  
5 in recent years due to the greater interest of both  
6 gas and electric utilities in using revenue cap  
7 indexes rather than price cap indexes.

8 The utilities increasingly preferred  
9 revenue cap indexes because they help to address  
10 the problem of declining average use that has long  
11 been a problem for gas companies, and is now a  
12 problem for many electric utilities. So there are a  
13 number of arguments for why you would use the  
14 number of customers as the output measure in a  
15 productivity study when you have a revenue cap  
16 index that has customer growth as an escalator.  
17 And this is one of the most obvious analyses and  
18 I'm not even going to go through the details of  
19 these equations 1 to 3, except to show that this is  
20 a very forceful argument that, if you have the sort  
21 of revenue cap index that is used in Québec, that  
22 has been used for Gazifère, that has been used,  
23 that has been proposed by the Régie for Gaz Métro,  
24 and that has been proposed for HQD, that you use  
25 the number of customers to measure output growth.

1                   Now, the next question is well, how many  
2 regulators agree with my perspective on this?  
3 Well, the Alberta Utility Commission could not have  
4 been clearer about this matter in the first generic  
5 PBR proceeding. And I'll just quote, read the  
6 second part of this paragraph, where it says:

7                   The Commission agrees with Dr. Lowry  
8 and his colleagues at PEG that for  
9 revenue per customer cap plans, the  
10 number of customers rather than the  
11 volumetric outputs, is the correct  
12 output measure for ATFP study. Using  
13 similar logic, the Commission agrees  
14 with Dr. Lowry that output measures  
15 that place a heavy weight on  
16 volumetric and other usage measures  
17 should be used for TFP studies that  
18 are part of a price cap PBR plan.

19 Now, does that mean that the AUC therefore did not  
20 want productivities with volumetric output index?  
21 And the answer is no, but for a perfectly good  
22 reason; that in Alberta, they use price caps to  
23 regulate the electric utilities, the power  
24 distributors, and they use revenue caps to regulate  
25 the gas distributors. So, if you just entertain

1 studies that use the number of customers, that  
2 would be inappropriate for the regulation of the  
3 power distributors. And incidentally, power  
4 distribution assets tend to be larger than gas  
5 distribution assets, so that it has a more  
6 important impact on the consumer's pocketbook.

7 So, they would, you know, be perfectly  
8 correct in saying I'm going to be agnostic about  
9 the right type of an output measure to use in a  
10 study. The question really is how would a  
11 Commission want to see productivity done if it was  
12 a revenue cap index that was contemplated. So,  
13 let's look at some of the evidence for that,  
14 starting with a study that Christensen Associates  
15 did for Eversource Energy.

16 (9 h 18)

17 Now, Eversource Energy was proposing a  
18 revenue cap index, and Christensen made a change in  
19 the Makholm methodology in that proceeding to use  
20 the number of customers as the output metric, and  
21 the Massachusetts Commission agreed with this  
22 treatment. Not only that, many other Commissions  
23 have gone along the same road. And we'll start with  
24 the commission based in Montreal, Québec, because  
25 the Régie de l'énergie has twice approved revenue

1 per customer types of revenue cap indexes for  
2 Gazifère, and in both proceedings, the output  
3 treatment that was used in the productivity study  
4 was the number of customers served.

5 Similarly, recently in the British Columbia  
6 decision, the utilities there were proposing  
7 revenue cap indexes and the British Columbia  
8 Commission embraced a TFP measurement methodology  
9 that used the number of customers as the output  
10 metric.

11 By my count, there are also six other  
12 Commissions that have embraced, in various  
13 contexts, the use of the number of customers as the  
14 output metric for a productivity study. So, there  
15 is ample evidence of the correctness of the  
16 analysis that I presented, and so I'd like to move  
17 on to consider, well, what would happen if we all  
18 agree that the number of customers should be used  
19 in an X Factor calibration productivity study for  
20 Hydro-Québec.

21 Well, in that event, my equation for  
22 presented here shows that the bias of Dr.  
23 Makholm's study is equal to the difference between  
24 the transient volumes in customers, which is  
25 tantamount to the trends in the average use of the

1 utilities in the sample.

2 And in this regard the average use of  
3 residential and commercial customers is by far the  
4 most important because these customers account for  
5 the lion's share of the revenue requirement. And  
6 aside that many power distributors... many large  
7 industrial customers in the United States do not  
8 even take a distribution service, they take their  
9 power directly from the transmission system.

10 So, if there is a bias in Dr. Makhholm's  
11 study equal to the trend in average use, we're all  
12 interested to know, well what is the trend in the  
13 average use of residential, and commercial  
14 customers in the United States. And I prepared, in  
15 this regard, a table for my recent study for  
16 Lawrence Berkeley National Laboratory.

17 Now, mind that the Makhholm study starts in  
18 about nineteen seventy-three (1973), and that it  
19 goes to around about two thousand fourteen (2014),  
20 and take note then that from about nineteen  
21 seventy-three (1973) to about the year two thousand  
22 (2000), when there was this supposed break in the  
23 productivity trends of power distributors, you can  
24 see that the average growth of the average use of  
25 residential, and commercial customers was about one

1 point five percent positive (+1.5%). But what's  
2 happened since then?

3 Since two thousand (2000), it, first of  
4 all, slowed to about zero point six eight (0.68),  
5 and since the Great Recession of two thousand eight  
6 (2008), it has actually gone negative for the  
7 typical US power distributor.

8 And so, this is the cause not only of the  
9 slowdown in the reported productivity growth using  
10 the Makholm methodology, but it also shows why it's  
11 even gotten worse in the last few years. It's due  
12 to this decline in the average use.

13 Notice that the step-down here is about one  
14 hundred (100) basis points. And remember, in the  
15 slide that I showed for the... in my Alberta reply  
16 evidence, that the slowdown in productivity growth  
17 using his method after two thousand (2000) was, you  
18 know, in the neighbourhood of a hundred and fifty  
19 (150) basis points. So in my opinion, this  
20 substantially explains the slowdown in productivity  
21 growth using Makholm's methods.

22 So, what conclusions, then, can be drawn  
23 from this. First of all, as I've said, the  
24 declining average use is chiefly responsible for  
25 the slowdown in productivity growth using Makholm's

1 methods and if you listened to Mr. Coyne talk about  
2 this yesterday, he even said that the PMF's  
3 slowdown was mainly due to output growth. He didn't  
4 give you a story about how some capital spending  
5 cycle or something like that is causing power  
6 distributors to have higher cost. He just said it  
7 was due to a slowdown in output growth, and I'm  
8 showing you that the specific slowdown in output  
9 growth that he's talking about is about the volumes  
10 and that that doesn't really make any difference to  
11 the calibration of an X Factor for Hydro-Québec  
12 Distribution.

13 (9 h 23)

14 I would also note that when you take my  
15 discussion of the average service life and of the  
16 declining average use together, that after two  
17 thousand (2000) was happens with doctor Makhholm's  
18 method is that the growth in average use which if  
19 you recall was brisk, it was like one point six  
20 percent (1.6 %). That growth has dissipated and in  
21 doing so reveals the underlying problem of the  
22 thirty-three (33) year average service life.

23 And that is were the mirage of a negative  
24 productivity trend or trending negative comes from.  
25 In reality, if you use a permanent measure of PMF

1 growth for Hydro-Québec Distribution the  
2 productivity trend is not trending negative and I  
3 also feel that undue weight need not be placed on  
4 the latest studies and decisions. For example, the  
5 Eversource decision which is the only decision, by  
6 a regulator, that has a negative base productivity  
7 trend, does not need to be given any special weight  
8 in this proceeding.

9 So recapping, the Alberta Commission's  
10 acceptance of doctor Makholm's productivity  
11 methodology basically opened a pandora's box where  
12 inexperienced utility witnesses had the opportunity  
13 to cherrypick a favourable truncated sample period  
14 of something like two thousand (2000) to two  
15 thousand sixteen (2016). Now doctor Makholm himself  
16 has never advocated doing this. He routinely used a  
17 much longer sample period in which PMF growth is  
18 positive and he has never advocated sole reliance  
19 on results for a truncated sample period. And in  
20 fact, he recently testified in Ontario and proposed  
21 a zero percent (0 %) X Factor based on an update of  
22 the study that he did in Alberta.

23 Now, meanwhile Brattle and Christensen,  
24 along with Concentric, have not questioned  
25 Makholm's weekly supported capital costs treatment,

1 which is favourable to utilities, even though many  
2 of these companies that have done this testimony in  
3 the past did not use the one-hoss shay method  
4 before this proceeding. For example, Christensen  
5 Associates was a long-standing advocate of the  
6 geometric decay approach and Mr. Coyne in his one  
7 multifactor productivity research and testimony  
8 also used a geometric decay approach.

9 So, unfortunately, the Massachusetts  
10 commission fell for this gambit and acknowledged a  
11 zero point four six percent (0.46 %) national  
12 distribution productivity trend but I can tell you  
13 as a witness, occasional witness in Massachusetts  
14 how corky that decision was because in two thousand  
15 thirteen (2013), this same Commission rejected a  
16 proposal for a revenue cap index by another power  
17 Distributor called Unatil that was based on a one  
18 point one nine percent (1.19 %) positive  
19 productivity trend. So, I guess the moral of the  
20 story to me is that the process of *jugement* should  
21 not and cannot ignore at least a very short list of  
22 the most important methodological issues.

23 However, when Hydro-Québec ultimately does  
24 an actual study, there will be a lot of other  
25 smaller issues to consider.

1                   Now, I've talked about why the results  
2 using my methodology are more appropriate, more  
3 germane for Hydro-Québec Distribution and so let me  
4 say just a little bit more about my methodology.

5                   First of all, most of my studies including  
6 the Berkely Lab report include the SALC and the  
7 general costs. We also used customer growth as the  
8 scale variable so that our PMF trend is much more  
9 stable and does not slow markedly after the years  
10 two thousand (2000). Our numbers have slowed over  
11 the years but mostly that's due to the fact that a  
12 few years ago, we'd made an effort to expand the  
13 sample that we base our research on, and it just so  
14 happened that, what we did, the productivity trend  
15 went down somewhat.

16                   (9 h 27)

17                   We also use a reasonable average service  
18 life assumption. In the Berkeley lab study it was  
19 thirty-seven (37) years, but with the geometric  
20 decay approach to capital costs it's not really  
21 that sensitive to the average service life anyways.  
22 And finally, as I just alluded to, we use a larger  
23 sample than Makholm or Brattle or Christensen use.

24                   Now, another study that Mr. Coyne has  
25 featured in his testimony is the Statistics Canada

1 multi-factor productivity index for the utility  
2 sector of the Canadian economy.

3 Now, I do not believe that this should be  
4 given any weight by the Commission for a number of  
5 reasons. By way of explanation, the reason that  
6 they compute this is that it's part of the  
7 construction of their estimate of the multi-factor  
8 productivity trend of the Canadian economy. So, they  
9 do it by sectors, and then they add up the sectors.

10 Now, the utility sector in question is not  
11 equal to power distribution. First of all, in  
12 various provinces that have vertically integrated  
13 utilities, it includes the transmission and  
14 generation, it also would include the generation of  
15 HQP here in Québec. It includes gas distributors  
16 and it also includes water and sewage utilities.  
17 So, it's quite different in flavour from power  
18 distribution per se.

19 It's also noted that the index that is  
20 featured, than the one that Mr. Coyne used, is a  
21 value-added index that excludes intermediate  
22 inputs; and the reason they do that is because, as  
23 I said, this is used to construct the multi-factor  
24 productivity trend of the economy and when they do  
25 that they only consider as inputs the labour inputs

1 and the capital inputs, they don't consider  
2 intermediate inputs. And so, that part is excluded.  
3 What would, for Hydro-Québec, be things like  
4 materials and services are excluded from their  
5 study.

6 It should also be noted that the output  
7 metric is very sensitive to declining average use,  
8 and it turns out that that's actually more a  
9 problem for gas and water utilities historically  
10 than it has been for electric utilities in Canada  
11 as in the United States. So, all told, I do not  
12 think that this is a germane study to include.

13 Now, let me say a little bit about the  
14 Concentric evidence. I said in my response to the  
15 Régie data request that I thought that their  
16 evidence is biased and uninformative. And let me  
17 say a little bit about what I mean about each of  
18 those things.

19 In terms of being uninformative, I feel  
20 that it glosses over critically important  
21 methodological issues that affect the weighting  
22 that you should put on these recent studies and  
23 decisions. And that I really feel that you're going  
24 to have to think about many of these issues just in  
25 supervising the company in doing their productivity

1 report.

2 I would also comment that Mr. Coyne himself  
3 takes no positions on these issues when questioned.  
4 For example, if you asked him a question about  
5 what's the right output treatment, he would simply  
6 say what the Alberta Commission said in one  
7 proceeding, not his own opinion. So, apparently  
8 Mr. Coyne is of the view that it's not even  
9 appropriate for him to have yet resolved his own  
10 opinions about these key issues that, really,  
11 that's something to be done after he has given you  
12 advice about the appropriate X Factor in this  
13 proceeding. I think that's kind of a wacky view of  
14 things.

15 As for bias, I feel that he focuses on  
16 studies by witnesses in recent proceedings and not  
17 Commission decisions, or scholarly studies, even  
18 though that most of these witness studies were  
19 prepared for utilities and used in inappropriate  
20 and/or controversial productivity methods.

21 For example, he felt that... I particularly  
22 am taken aback that Hydro-Québec would suggest that  
23 what I'm doing is to relitigate proceedings like  
24 the Alberta proceeding; I mean, that's the entirety  
25 of what Mr. Coyne has done, as to put his emphasis

1 on what various witnesses said and put very little  
2 emphasis on what the Commission has decided,  
3 because very few commissions have taken seriously  
4 this idea of a negative productivity trend.

5 It's also the case that he selectively  
6 presents favourable results even from these studies  
7 because a number of the studies have productivity  
8 results for a much longer sample period than just  
9 the period since the year two thousand (2000), and  
10 he did not even inform the Régie of results for  
11 these longer periods, even though that was a very  
12 great interest in Alberta.

13 (9 h 32)

14 Now, I'm going to skip over this slide,  
15 which was somewhat whimsically thrown together,  
16 considering some of the do's and don'ts, implicit  
17 do's and don'ts of Concentric in terms of X Factor  
18 design, but it's all true. But let's just go to  
19 his... one of the tables that he presents in his  
20 testimony, which is on page... I'm not sure the  
21 number of the page, I think it's 6. Okay, I think  
22 it's page 6 and I encourage you all to get this  
23 out, because I'm also going to show you something o  
24 page 7 if you can find it.

25 So, just looking at this result, I mean,

1 just look at the staggering bias that's implicit in  
2 this table. For example, we don't want to put in  
3 Dr. Lowry's reply evidence in Alberta because it  
4 was unvetted, but we do want to put in the unvetted  
5 study by Power Systems Engineering in Ontario. We  
6 don't want to put on this slide Dr. Lowry's recent  
7 study for Berkeley Lab because it wasn't submitted  
8 in a regulatory proceeding. But we do want to put  
9 in the study for Statistics Canada, which was not  
10 submitted in any regulatory proceeding.

11 It's also noteworthy that most of these  
12 studies either have a bad capital cost treatment or  
13 use volumetric output indexes and that several of  
14 the studies on this page actually present results  
15 all the way back to nineteen seventy-two (1972), in  
16 which event the long-term productivity trend is  
17 actually positive.

18 Now, Mr. Coyne has also made some comments  
19 about the fact that the X Factor for Hydro-Québec  
20 should, if anything, be higher because of the lack  
21 of a capital cost tracker, or some sort of a fixed  
22 provision for supplemental capital revenue, such as  
23 the C Factor of Toronto Hydro in Ontario, and I'd  
24 like to make a few statements about this.

25 First of all, I agree that the relationship

1 of the X Factor to supplemental capital revenue  
2 should be considered in the proceedings like this,  
3 and in fact, I have a raised this issue in a number  
4 of proceedings, like British Columbia and Alberta,  
5 and my colleagues at PEG have done the same thing  
6 in Ontario.

7 So, basically our view is, because of that  
8 double-counting problem that exists if you give  
9 supplemental capital revenue whenever a company has  
10 a Cap X surge, but don't consider the fact that all  
11 the companies in the productivity sample were  
12 spending money, sometimes it was a surge and  
13 sometimes it was a slow period. So, we have always  
14 taken the position that, if you have any  
15 supplemental capital revenue, that there should be  
16 an increase in the X Factor to account for that.  
17 Not enough to completely offset the result of the  
18 cost tracker, but just so that, in the long run,  
19 that customers are still guaranteed the benefit of  
20 industry productivity results.

21 Now, I can tell you that the Commissions in  
22 British Columbia, Alberta, and Ontario have all  
23 rejected that idea. So, when they choose a base  
24 productivity trend, it is not with any  
25 consideration for the supplemental capital revenue

1 that they are provided. In fact, they should have  
2 raised the X Factors, in my opinion, but they did  
3 not.

4 Now, interestingly, one Commission actually  
5 recently did see things the way I'm talking about  
6 them and that was the Massachusetts commission.  
7 They decided to have a capital track or treatment  
8 of some grid modernization expenses of Eversource,  
9 and as a consequence, they actually raised the  
10 X Factor by roundabout a hundred (100) basis  
11 points.

12 (9 h 38)

13 Now, meanwhile, it also should be noted  
14 that when a company like Toronto Hydro, or these  
15 utilities in Alberta are asking for extra money for  
16 capital, they made very strong cases that they  
17 needed for special circumstances, extra money. For  
18 example, in Alberta, the story went that it was  
19 sort of a boom and bust economy, and there were a  
20 lot of assets added in the oil price boom of, say  
21 the nineteen seventies (1970s) that now needed to  
22 be replaced.

23 And Hydro-Québec Distribution has not made  
24 any such claim in this proceeding. In fact, to  
25 their credit, and there are many things nice that

1 you can say about Hydro-Québec Distribution, but  
2 they've, you know, been involved in an earnest  
3 attempt to contain their capital spending through  
4 this thoughtful program that they have.

5 So, meanwhile, it's also not the case that  
6 the Régie has ruled out any supplemental capital  
7 revenue. Well, one of my biggest concerns about  
8 this plan is that they have allowed the use of a Z  
9 Factor for possible supplemental funding for major  
10 plan additions.

11 So, adding this all up, I think that the  
12 X Factor should, if anything, be higher for Hydro  
13 Québec Distribution if there is a major planned  
14 Z Factor. And then, when you also consider the Z  
15 Factor treatment, the inflation treatment, if  
16 anything, X should go higher, and not lower, as  
17 Mr. Coyne would imply.

18 Another thing about... that you have to be  
19 very careful about in reading Mr. Coyne's evidence  
20 is that he talks a lot about how the ultimate  
21 X Factor in Massachusetts was different, was even  
22 more negative, and who knows what we might need to  
23 press a claim for this sort of treatment in Quebec  
24 as well. And being mindful of the time running out,  
25 I will just say that it is very unlikely that this

1 sort of adjustment is necessary in Québec because  
2 the productivity trend of the Canadian economy is  
3 very close to zero, and the Commission has already  
4 proposed two adjustments to what would otherwise be  
5 the use of IPC Québec in order to consider special  
6 input considerations of Hydro-Québec, namely the  
7 use of the labour price index, and then also, the  
8 special adjustment for the cost of, weighted  
9 average cost of capital.

10           Regarding the stretch factor, I'll also go  
11 over this slide a little more quickly to speed up.  
12 I basically do agree with Concentric and the  
13 company about a stretch factor of about zero point  
14 two o' percent (0.20%) is appropriate, and that's  
15 mainly because the plan that's envisioned doesn't  
16 really generate that much in the way of stronger  
17 performance incentives compared to the national  
18 sample and the types of incentives they operated  
19 under, where I estimate that their typical lag  
20 between rate cases is about every three years, and  
21 they don't have earning sharing mechanisms,  
22 typically in the United States.

23           Now, as for the inflation measures, I feel  
24 that my recommendation depends on whether the  
25 Commission ultimately decides to a Y Factor the

1        *combustibles* expenses. Let's suppose that they  
2        decide not to do that, then really the average  
3        weekly earnings and IPC Québec make a fair bit of  
4        sense, because IPC Québec has about a five percent  
5        (5%) weight, four (4), five (5) percent weight on  
6        gasoline prices. And that's not that different from  
7        the weight of the *combustibles* in the applicable  
8        *revenus requis* of Hydro-Québec Distribution. Just  
9        to be sure, I think it's about four percent (4%).  
10       So, that works pretty well there.

11                However, if the *combustibles* is Y Factored,  
12        then you might want to consider a different macro-  
13        economic index. The one that I proposed was the  
14        gross domestic product implicit price index for  
15        final domestic demand in Canada because that has a  
16        lot less weight on things like gasoline prices.  
17        That's the index that they use in Ontario MRIs.

18                Now, FCEI witness Mr. Gosselin, a report  
19        prepared, Mr. Gosselin proposed to use a consumer  
20        price index that excludes energy costs and  
21        *alimentation*, and I think that would also make just  
22        as much sense.

23                Now, as for Hydro-Québec's proposal for a  
24        three-part index that would better track its input  
25        prices, I think that the general idea is not a bad

1 one. And I don't mind the complexity, being an  
2 expert in this field, I don't mind the complexity of  
3 it, as long as other people don't really mind it,  
4 but I wonder if the proposal that they have used  
5 is... that they have advanced is really quite ready  
6 for prime time and the asset price index is my  
7 biggest concern about this.

8 (9 h 42)

9 Under traditional regulation, there is an  
10 implicit asset price index in the cost of service  
11 that is a complex function of past construction cost  
12 trends, going all the way back forty (40) years, and  
13 it's a rather smooth adjustment implicitly from year  
14 to year. And when you go to try to get an asset  
15 price index to match that trend, first of all, it's  
16 not clear what's the right asset price index and  
17 it's also not clear whether, if you just smooth its  
18 recent inflation for three years, that that's going  
19 to match the implicit asset price index in your own  
20 cost of service regulation.

21 And so, I didn't know how much time to spend  
22 on this issue because there was no speaking of  
23 funding for any empirical research in this phase of  
24 the proceeding, but I did try to be helpful enough,  
25 and sorry this isn't more legible, it is available

1 in my response to data request.

2 But I did try to be helpful in putting on a  
3 paper, a bunch of different alternative asset price  
4 indexes that include the one that the company  
5 proposed, which is the implicit price index for a  
6 business gross fixed capital formation, but this  
7 reads even worse than it did when I was preparing  
8 it, so I apologize, for some reason on the screen  
9 it's not doing so well.

10 Alternative indexes that might address the  
11 inflation in the asset price would be the IPC  
12 Québec, which the Commission has proposed, and the  
13 GDP-IPI FTD which I proposed. And then I put also  
14 some alternative indexes such as the implicit  
15 capital stock deflators for the utility industry.  
16 We wouldn't want to use the one in Québec, but the  
17 one for the neighbouring province of Ontario tracks  
18 it very closely, so that would be another candidate  
19 to consider.

20 And lastly, in my testimony, I compared all  
21 of these to the two pertinent electric utility  
22 construction price indexes that were calculated  
23 until two thousand fourteen (2014) by Statistics  
24 Canada. The one for distribution systems apparently  
25 does not include substations, so you also want to

1 look at the one for substations.

2 And so, in comparing these all, I guess I  
3 came away not being entirely convinced that the  
4 business gross fixed capital formation asset price  
5 index was obviously appropriate and really, the two  
6 macro-economic indexes didn't do that bad a job of  
7 tracking the AUC PI over the period in question. As  
8 I said, the utility capital stock deflator for  
9 Ontario would be another candidate. So, I guess I  
10 just come away feeling that this proposal is not  
11 ready for prime time.

12 Two slides to go. Talking first about the  
13 Y Factors in terms of the eligible costs, the  
14 Commission has already said that we would have  
15 Y Factors for power supplies, transmission, weather  
16 normalization, well, I think they said weather  
17 normalization and weighted average cost of capital.

18 In any event, I support not only a Y Factor  
19 for weather normalization because I think that  
20 encourages experimentation with new rate designs,  
21 which is appropriate with the AMI facilities that  
22 the company now has. I also agree with the company  
23 about Y factoring all conservation and demand  
24 management cost, because we need all the incentives  
25 that the company can get through Y Factors to

1 encourage the company to use these alternatives to  
2 capital spending.

3 As regard to the materiality threshold, I  
4 agree with the Commission about the fifteen million  
5 dollar (\$15 M) target, but I also want to make clear  
6 that it should include a dead zone. Hydro-Québec was  
7 wondering what exactly I meant, how would this dead  
8 zone function.

9 And so here's the formula that I would  
10 recommend, that the supplemental revenue is the  
11 maximum of - this is a bit of a misstatement - I  
12 should say the cost variance minus fifteen millions  
13 (15 M). In other words, the company absorbs the  
14 variance, as positive or negative, for fifteen  
15 million (15 M), or the zero number.

16 Now, it should also be noted that I have,  
17 considering the cost categories that I think should  
18 be Y factoring, are the only threshold that this  
19 would apply to in my proposal is retirements because  
20 I'm not advocating a fifteen million dollar (\$15 M)  
21 threshold dead zone for these categories for various  
22 reasons, which I'd be happy to discuss.

23 And finally, the Z Factors, I agree that...  
24 I feel that the following events should be eligible  
25 for Z Factor treatment, *pannes majeures*,

1 unforeseeable events in the *réseaux autonomes*, the  
2 *tarif de maintien de la charge*, the contributions to  
3 connexions with HQT, changes in accounting  
4 standards, and miscellaneous external events.

5 (9 h 48)

6 I'm very leery about the capital, the idea  
7 of having major plan additions treated however  
8 through the Z Factor. Effectively, that's something  
9 that they tried in Alberta and it was the source of  
10 no end of problems because, really, it's a big deal  
11 that the company even has the opportunity to get  
12 this extra money. It's just extra money that, you  
13 know, that's the benefit, and the cost is the  
14 regulatory staff's activities, although Concentric  
15 is pretty expensive, so that is maybe not  
16 negligible. Just kidding.

17 So, in any event, this ended up in the first  
18 generic Alberta proceeding being a major headache.  
19 They ended up having to have a whole second  
20 proceeding just how to work out the details for  
21 giving the company supplemental capital revenue.  
22 And then the companies exploited it vigorously to  
23 ask for all sorts of supplemental revenue.

24 So, I'd be happy to talk more about this,  
25 and any other issue, but I think I've probably

1 already said too much, and should probably now  
2 accept any questions.

3 LA PRÉSIDENTE :

4 Il faut pas oublier l'assermentation.

5 (9 h 49)

6 Me GUY SARAULT :

7 Non. Mais avant que vous alliez vous acheter des  
8 loupes, je vais vous donner certaines cotes qui vont  
9 vous aider. Alors, la planche numéro 12 vous la  
10 retrouvez à la réponse à la demande de  
11 renseignements numéro 2 de la Régie et c'est le  
12 « attachment » Régie AQCIE 2.1A et le numéro de cote  
13 Régie c'est C-AQCIE-CIFQ-041. Et la planche numéro  
14 22 est identique à la page 6 de la présentation  
15 PowerPoint du docteur Coyne, qui a été cotée comme  
16 B-208. Ça va? Et la planche 27 est également tirée  
17 des réponses à la demande de renseignements numéro 2  
18 de la Régie, c'est le « attachment » AQCIE Régie  
19 1.2A. Et la cote Régie c'est AQCIE-CIFQ-039. Et  
20 j'aurais une seule question de clarification à  
21 demander au docteur Lowry avant d'assermenter maître  
22 Allard et monsieur Vézina.

23 (9 h 51)

24 Q. **[13]** Doctor Lowry, at page 17 of your PowerPoint  
25 presentation, second last paragraph, you referred to

1 a Massachusetts Commission decision which would have  
2 allowed a minus zeros point forty-six percent (-  
3 0.46 %) PMF trend. Correct?

4 A. Right. The Massachusetts Commission did decide in  
5 the Eversource case on a negative zero point four  
6 six percent (0.46 %) base productivity trend,  
7 industry productivity trend, which they then due to  
8 special circumstances that don't apply in Québec,  
9 move further and ultimately ended up at negative one  
10 point five six (-1.56), but the actual number is  
11 point, the pertinent comparative number is the zero  
12 point four six (0.46) and now that I'm thinking  
13 about that, I had meant to mention if you look at  
14 Mr. Coyne's slide number 7, that's actually why I'd  
15 ask people to get this out, you'll see its talks  
16 about how the regulatory trend and approved PBR X  
17 factors reflects the actual downward trend in  
18 industry productivity. You'll note that the last  
19 column of that is Eversource two thousand eighteen  
20 (2018) to two thousand twenty-two (2022) and the  
21 number he attaches to that is the negative one point  
22 five six (-1.56) and it was actually the negative  
23 zero point four six (-0.46). Not only that, but it  
24 has to be remembered when you upraise the Eversource  
25 decision that Eversource never proposed a customer

1 growth factor and the average customer growth of the  
2 two utilities that were going to operate under this  
3 plan, was zero point five six percent (0.56 %) I  
4 believe. So, they approved the zero point four six  
5 (0.46) in the knowledge that Eversource never asked  
6 for a zero point five six percent (0.56 %) customer  
7 growth factor.

8 (9 h 53)

9 Q. **[14]** Alors, je vous remercie. Merci. Alors, bon, on  
10 est rendu au grand moment, Madame la Greffière. Et  
11 je m'excuse encore, panne de cerveau.

12

13 L'AN DEUX MILLE DIX-HUIT (2018), ce neuvième (9e)  
14 jour du mois de février, ONT COMPARU :

15

16 JOCELYN B. ALLARD, avocat, président, ayant une  
17 place d'affaires au 1010, rue Sherbrooke Ouest,  
18 bureau 1800, Montréal (Québec);

19

20 PIERRE VÉZINA, ingénieur et directeur énergie et  
21 environnement, ayant une place d'affaires au 1175,  
22 avenue Lavigerie, bureau 201, Québec (Québec);

23

24 LESQUELS, après avoir fait une affirmation  
25 solennelle, déposent et disent :

1 MARK NEWTON LOWRY

2 (Sous la même affirmation solennelle), dépose et  
3 dit :

4

5 INTERROGÉS PAR Me GUY SARAULT :

6 Q. [15] Alors, évidemment, je pense que la présentation  
7 était confiée totalement au docteur Lowry, mais est-  
8 ce que l'un ou l'autre d'entre vous auriez quelques  
9 mots à ajouter?

10 Me JOCELYN B. ALLARD :

11 R. Merci, Maître Sarault. Vu que vous me l'offrez,  
12 effectivement j'ai prévu vous dire quelques mots  
13 rapidement. Je n'ai évidemment pas l'intention de  
14 reprendre les points du docteur Lowry. Je veux  
15 simplement profiter de l'occasion pour faire part de  
16 quelques préoccupations alors que nous semblons  
17 arriver, finalement, à la mise en place d'un MRI  
18 pour Hydro-Québec Distribution.

19 Évidemment, je dis « finalement » parce que,  
20 comme je l'ai probablement déjà mentionné, je  
21 demeure surpris d'avoir agi ici à la Régie comme  
22 procureur pour la mise en place d'un MRI pour un  
23 autre distributeur réglementé il y a déjà plus de  
24 quinze (15) ans. Alors que, ici, pour Hydro-Québec  
25 Distribution, nous débattons finalement de MRI de

1 première génération. Alors, comme ils disent, mieux  
2 vaut tard que jamais, semble-t-il.

3 Ce qui est préoccupant toutefois, c'est que  
4 le Distributeur a fait preuve de toute la créativité  
5 dont il est capable pour mettre tellement de  
6 balises, de bémols, de protections pour lui dans  
7 l'élaboration d'un MRI qu'on ne sera plus trop  
8 certain si c'est vraiment un MRI fonctionnel qui lui  
9 sera appliqué.

10 J'écoutais évidemment les témoins du  
11 Distributeur et ça me surprend toujours d'entendre à  
12 quel point le Distributeur n'a pas de contrôle sur  
13 tellement de coûts qu'il doit refiler à ses clients.

14 À titre d'exemple, c'est seulement un  
15 exemple puis ce n'est pas un débat sur... j'ai pris  
16 une illustration parce que, moi, ça m'a frappé. On  
17 vous propose même de traiter la gestion de la  
18 végétation pouvant affecter le réseau comme une  
19 exclusion. On a toutes sortes d'explications  
20 justifiées, les insectes, le changement climatique,  
21 le retard qu'on constate aujourd'hui dans la gestion  
22 passée de la végétation, vous savez à l'époque où on  
23 faisait des trop-perçus qui n'étaient pas partagés  
24 avec la clientèle.

25 Mais, il n'en reste pas moins qu'on peut se

1 le dire, il n'y a pas beaucoup de choses qui font  
2 tant partie de l'essence même des activités ou des  
3 responsabilités d'un distributeur d'électricité qui  
4 gère son réseau que de planifier et d'exécuter la  
5 gestion de la végétation qui peut l'affecter.

6 Le Distributeur doit être proactif à cet  
7 égard, mais également réactif parce qu'il y aura  
8 forcément des événements qui vont obliger à mettre,  
9 certaines années, plus de ressources sur cette  
10 tâche. Il faut établir des priorités, faire des  
11 choix. Gérer, c'est choisir. On ne peut pas tout  
12 faire en même temps.

13 Donc, on s'attendrait à ce que le  
14 Distributeur agisse comme toute entreprise en réelle  
15 compétition et qui doit constamment améliorer sa  
16 productivité pour survivre à la concurrence. On  
17 s'attendrait à ce que le Distributeur agisse, pour  
18 beaucoup des éléments de coûts, par exemple la  
19 gestion de la végétation, comme une vraie business.

20 On ne s'attendrait pas à ce qu'il demande de  
21 traiter quelque chose d'aussi essentiel à ses  
22 opérations comme une exclusion, comme si c'était  
23 quelque chose sur lequel il ne peut pas agir à  
24 partir de ses budgets globaux soit en établissant  
25 des priorités, en s'assurant d'une exécution

1 performante au meilleur coût possible.

2 Vous savez, c'est pour ça qu'on a une  
3 réglementation pour un monopole comme le  
4 Distributeur parce que les forces du marché et la  
5 compétition ne sont pas présentes pour promouvoir  
6 l'intérêt des clients d'avoir le meilleur service au  
7 meilleur prix parce que le Distributeur n'est pas  
8 soumis aux aléas de la vraie vie comme le sont, par  
9 exemple, des industriels. Des événements inattendus  
10 qui affectent la business, des facteurs externes  
11 qu'on ne contrôle pas en totalité ou partiellement,  
12 mais avec lesquels il faut composer sans affecter sa  
13 compétitivité pour pouvoir survivre et prospérer.

14 C'est plus facile de développer des  
15 explications pour justifier que telle cause externe  
16 ou telle autre cause externe n'est pas sous notre  
17 contrôle complet et qu'on a besoin d'un revenu  
18 requis additionnel pour y répondre. Les clients  
19 n'auront pas le choix de payer de toute façon. Ce  
20 n'est pas une option que les industriels, par  
21 exemple, ont lorsqu'ils doivent réagir aux diverses  
22 pressions externes.

23 Et c'est ce que je comprenais et que j'ai  
24 retenu de mon expérience passé, de l'utilité d'un  
25 MRI. C'est de faire en sorte de rapprocher encore

1 plus le fonctionnement du monopole réglementé avec  
2 ce qu'il en serait dans un marché compétitif dans la  
3 vraie vie.

4 (9 h 58)

5 Mais si on choisit des mesures qui créent des  
6 coussins d'avance comme, par exemple, les  
7 composantes du calcul d'inflation, qu'on ajoute des  
8 exclusions, des exogènes, qu'on diminue les seuils  
9 pour ne pas voir le MRI s'appliquer, on finit par  
10 dénaturer l'exercice. Sur la totalité de revenus  
11 requis, c'est-à-dire ce qui engendre les tarifs qui  
12 doivent être payés par les clients, on parle ici  
13 d'un MRI qui ne touchera même pas le tiers de  
14 l'enveloppe totale. Si, en plus, on amoindrit avec  
15 des bémols l'application du MRI où il doit  
16 s'appliquer, alors on risque d'avoir fait tout cet  
17 exercice pour bien peu, et cet exercice qui a  
18 commencé déjà bien avant mon temps dans  
19 l'électricité, il y a déjà plusieurs années. On  
20 risque de conclure, au bout du compte, que malgré ce  
21 retard de plus de quinze (15) ans avant de voir  
22 Hydro-Québec Distribution être finalement challengée  
23 par un MRI, on n'aura pas vraiment instauré un  
24 mécanisme qui doit contribuer à améliorer  
25 l'encadrement réglementaire dans son rôle de

1 substitut crédible à un marché réellement  
2 compétitif. C'était les commentaires politiques que  
3 je voulais vous faire aujourd'hui devant la Régie au  
4 nom de mes membres. Merci.

5 Me GUY SARAULT :

6 Alors je crois que ça complète la preuve de l'AQCIE  
7 et du CIFQ. J'avais annoncé au grand total une heure  
8 et dix puis on a fait une heure et demie, donc vingt  
9 (20) minutes d'excédent. Je ne pense pas que nous  
10 sommes hors normes dans les circonstances.

11 LA PRÉSIDENTE :

12 Si on prend la moyenne depuis le début de la  
13 semaine, non, vous n'êtes pas hors normes.

14 Me GUY SARAULT :

15 Merci.

16 LA PRÉSIDENTE :

17 Alors, je pense qu'on va quand même prendre peut-  
18 être la pause tout de suite à ce moment-ci avant de  
19 commencer les contre-interrogatoires, mais nous  
20 commencerions le contre-interrogatoire avec l'AHQ-  
21 ARQ et, maître Tremblay.

22 Me JEAN-OLIVIER TREMBLAY :

23 Oui, en fait, je voulais vous demander une pause un  
24 peu plus longue, vu le contenu qu'on a entendu tout  
25 à l'heure, pour pouvoir bien nous préparer.

1           Toutefois, là, c'était difficile pour nous d'évaluer  
2           le temps que les autres intervenants qui passent  
3           avant nous vont requérir pour le contre-  
4           interrogatoire, là, alors dans la mesure où est-ce  
5           que si on estime ça à environ peut-être une heure  
6           trente pour les autres, on pourra, nous, profiter  
7           peut-être de la pause du dîner puis on n'aurait pas  
8           besoin d'examiner ma demande d'avoir une pause plus  
9           longue pour le matin. Alors, je vous laisse... je  
10          vous formule cette préoccupation-là, je vais le dire  
11          comme ça.

12          LA PRÉSIDENTE :

13          En fait, les gens ont, sur ma feuille qui fait le  
14          décompte de vos lettres de planification, j'en ai  
15          pour deux heures de contre-interrogatoire avant le  
16          vôtre. Alors, ça va nous amener amplement à l'heure  
17          du lunch. À la rigueur, si jamais ça nous amène à  
18          onze heures trente (11 h 30), on pourra prendre la  
19          pause lunch un peu plus tôt puis vous laisser, à ce  
20          moment-là, la période pour vous préparer et puis je  
21          pense que ça pourra aller. On va pouvoir prendre la  
22          pause tout de suite, il est dix heures (10 h 00), on  
23          reviendrait à dix heures et quart (10 h 15).

24          SUSPENSION DE L'AUDIENCE

25          REPRISE DE L'AUDIENCE

1 LA PRÉSIDENTE :

2 Rebonjour. Maître Cadrin?

3 (10 h 19)

4 CONTRE-INTERROGÉS PAR Me STEVE CADRIN :

5 Q. **[16]** Bonjour, Steve Cadrin pour l'AHQ-ARQ. Je ne  
6 prends de temps pour faire des prévisions sur mon  
7 temps de questionnement pour ne pas en gaspiller,  
8 alors je vais quand même laisser à monsieur... au  
9 docteur Lowry le temps de mettre les « head  
10 phones ».

11 Doctor Lowry, my first question, well, my  
12 only line of questioning goes to you. First  
13 question. We've talked with Concentric before your  
14 testimony today about decision D-2017-043 where the  
15 Régie said in paragraph 233, I'm going to read in  
16 French since it's written in French, so you'll be  
17 having the translation as I go with this reading of  
18 this paragraph:

19 La Régie considère que si dans le cadre  
20 de l'établissement du MRI et après  
21 avoir examiné l'ensemble des éléments  
22 couverts par la formule d'indexation,  
23 il apparaissait qu'un biais favorable  
24 ou défavorable devait émerger, elle  
25 pourra en tenir compte dans

1 l'établissement du stretch Factor  
2 propre au Distributeur.

3 You remember that paragraph, we've talked about it a  
4 little bit.

5 A. Yes.

6 Q. [17] My first question is from our understanding of  
7 your proof and your calculations to come up with the  
8 X and S Factor in this stretch factor or X Factor,  
9 as you may call them, you did not take into account  
10 any kind of bias.

11 A. Well, I think that the Régie ordered a process of  
12 *jugement* and *jugement* is supposed to include some  
13 consideration of a lot of different things and so in  
14 my presentation, as in my response to some of the  
15 information requests, I explained some of my  
16 reasoning for choosing the zero point three (0.3)  
17 and part of that is that I actually think that  
18 insofar as there is any such thing an implicit, an  
19 implicit stretch factor which could also be  
20 considered an adjustment to the X Factor, I prefer  
21 to think of it that way.

22 That, if anything, the rest of the plan, as  
23 currently envisioned, is favourable to the company  
24 and not to the consumers and therefore that  
25 basically is one of the reasons that I don't think

1 it's appropriate to knock off twenty (20) basis  
2 points for the zero point seven five (0.75) times  
3 customer growth. So, I think that consideration of  
4 the generally company leaning provisions, other  
5 company leaning provisions easily offset that and  
6 would it be even worse if the commission really does  
7 allow for major plan additions to be funded subject  
8 to fund... supplemental funding through the Z Factor  
9 because that really... it's hard to say what could  
10 come of that.

11 After all, it would provide an incentive for  
12 Hydro-Québec to bunch its capital spending to come  
13 up with reason to spend more in the next four years  
14 than it had currently envisioned, because if they  
15 do, they get extra money for it. So, you know, if  
16 anything if that ended up being a bigger deal, it's  
17 very unclear now what the Régie exactly envisioned  
18 for that and if anything, that would then add... you  
19 know, I would then advocate, if anything, raising  
20 the X Factor from zero point three (0.3).

21 Q. **[18]** You're saying about the Z Factor, if something  
22 comes up out of the Z Factor in your consideration?

23 A. The Z Factor treatment factor plan additions, there  
24 was mention of that in the Régie's decision. Usually  
25 when someone, when a regulator agrees to that, there

1 are all sorts of elaborate provisions for that. And  
2 a good example of that is the incremental capital  
3 module in Ontario. Now, that's a good model for the  
4 Régie to use if they want to think about allowing  
5 for the possibility of some supplemental revenue.  
6 And I said before that if you have such provision,  
7 if anything, you should be raising a X Factor. But  
8 what the Ontario Commission does instead or they may  
9 not have done it perfectly, but they add ten percent  
10 (10 %) to the materiality threshold. In other words,  
11 once the company demonstrate that the current  
12 revenue has escalated by a rate of revenue cap index  
13 is insufficient, the first ten percent (10 %) is not  
14 illegible for recovery through the incremental  
15 capital module.

16 (10 h 24)

17 Q. **[19]** Okay. And second question would be again  
18 referring to the paragraph of the Régie. So, the  
19 Régie states that if by looking at all the elements  
20 of the formula, it should come to the conclusion  
21 which its judgment and knowledge of the company and  
22 prior knowledge of the company and the way it's been  
23 presenting its cases in front of the Régie for the  
24 past years, it should come to the conclusion that  
25 there is a bias whether it be favourable or

1 unfavourable to the company, to Hydro-Québec in this  
2 case. What should it do and where should it adjust.  
3 The Régie has suggested that the stretch Factor  
4 would be adjusted to reflect that bias, whether it  
5 be one way or the other.

6 A. Well, there's literally three ways that you could  
7 make such an adjustment and one would be to adjust  
8 the stretch factor. But then someone will say no,  
9 no, that's not what the stretch factor is for, the  
10 stretch factor is solely to consider the possible  
11 acceleration in the company's incentives under the  
12 plan. You wouldn't want to do it there. Well, the  
13 next idea would be to have an extra term in the  
14 formula that would account for these biases.

15 Now, an example of where that was done was  
16 in California, where Southern California Gas was  
17 applying for what turned out to be a revenue per  
18 customer cap coincidentally and the consumer  
19 advocates got hold of a document from a presentation  
20 of senior management showing that they were going to  
21 have declining rate base over the term of the plan.  
22 And the California Commission, on that basis, added  
23 a whole extra one percent (1 %) to the X Factor in a  
24 separate term for that.

25 Q. [20] So, it's different from the X Factor, some...

1 A. Yeah, a third term. Now, the third possibility would  
2 adjust the base productivity trend for it and that's  
3 kind of implicitly the way I was talking, in other  
4 words saying that, well you could raise on the zero  
5 point three (0.3) up a little bit, or you could... I  
6 was implicitly saying it would be done through the  
7 base productivity trend. So, there's several ways to  
8 do that if you, and precedents for doing it each  
9 way.

10 Q. **[21]** That answers our questions. Thank you very  
11 much. Merci.

12 LA PRÉSIDENTE :

13 Merci beaucoup Maître Cadrin. Le prochain, Maître  
14 Turmel pour la FCEI.

15 CONTRE-INTERROGÉS PAR Me ANDRÉ TURMEL :

16 Q. **[22]** Bonjour membres du Banc en ce beau vendredi.  
17 Bonjour. Good morning Mr. Lowry.

18 A. Good morning to you.

19 Q. **[23]** We're just going to use this first slide as a  
20 first question. In fact, with respect to Y Factor  
21 and with respect to the materiality threshold, you  
22 advocating for a fifteen million (15 M) threshold,  
23 so I just want to understand maybe from an example.  
24 Let's say that if we do say that HQ does propose for  
25 the year to come expenses for eighty million (80 M),

1           okay, and then at the end the year, the real costs  
2           would be sixty million (60 M), okay. The reality, so  
3           what the prospective is eighty million (80 M) and  
4           the reality a year after occurred to be sixty  
5           million (60 M). So, we are stuck with this twenty  
6           million (20 M). I just want to see how this twenty  
7           million (20 M) has been treated in your formula and  
8           with respect also you mentioned the dead zone, so  
9           give me examples.

10          A. Okay. Well, the dead zone is fifteen million (15 M),  
11          because that applies to the high and the low. And so  
12          they would keep fifteen million (15 M), but the  
13          customers would be given back five million (5 M) on  
14          the count that cost category that had previously  
15          been designated for Y Factor treatment, the  
16          customers would get five million (5 M).

17          Q. **[24]** And so the fifteen million (15 M), when they  
18          say HQD will get fifteen million (15 M), I mean,  
19          it's not even part of the *mécanisme de traitement*  
20          *des écarts*. I just want to, using those amounts,  
21          with respect to the earnings share mechanism, is  
22          there any relationship with that? I just want to see  
23          if there's...

24          A. Well, that's a good question. I hadn't thought of how  
25          that would be treated. I guess I would have thought

1 that it's also subject to the earning sharing  
2 mechanism, but I had...

3 Q. [25] Okay. I don't want to surprise you, but we're  
4 just asking ourselves how does that work?

5 A. That's a good question.

6 Q. [26] Okay. You may think about that. If you later  
7 have an answer...

8 A. Okay.

9 Q. [27] But your first answer is that HQD keep the  
10 first fifteen million (15 M), the other five million  
11 (5 M) goes to the consumers. Okay.

12 A. Right.

13 (10 h 30)

14 Q. [28] Second question. I'm going to say it in French,  
15 just to make sure we do understand. Si la Régie  
16 accepte que la maîtrise de la végétation soit  
17 incluse dans le Facteur Y. Sachant que les études  
18 américaines en générales portent principalement sur  
19 le Facteur Y, est-ce qu'on devrait faire des  
20 ajustements à ces études quand on les interprète  
21 from a general...

22 A. Translation didn't go so high. Okay maybe you should  
23 ask it again?

24 Q. [29] Well, okay, I'll be the translator. So if Régie  
25 would agree to incorporate *the maîtrise de la*

1       *végétation* into the Y Factor, throughout this case,  
2       this proceeding we have used major, several US  
3       studies. We do talk about X Factor.

4       A. Yeah.

5       Q. [30] Where there's no Y Factor generally speaking.

6       A. Yeah.

7       Q. [31] Okay. So knowing that, so when we do... when  
8       Régie does have to play or interpret those studies,  
9       is there an adjustment that they have to do  
10       themselves when applying or interpreting those  
11       studies knowing that there's no Y Factor in the US  
12       and therefore, should it have an impact à la  
13       hausse sur le facteur de la productivité. Should the  
14       productivity factor be impacted on the upper side?  
15       Is that clear?

16       A. Okay so, yeah, I do understand now. So, this is  
17       another example of how productivity studies can and  
18       should be tailored to the issuer who used it there,  
19       going to be put to and if you're doing a  
20       productivity for X Factor calibration, you're  
21       usually going to try to exclude, from the study, any  
22       costs that are subject to Y Factor treatment. And,  
23       so unfortunately, there is no itemization of  
24       vegetation management on the federal energy  
25       regulatory commission form 1, so you can't take that

1 one out.

2 But it is true that the more categories  
3 you've put on the Y Factor treatment, I mean the  
4 companies and the sample are incurring these all the  
5 time and if you are not considering the fact that  
6 that could be pulling down the X Factor by slowing  
7 down productivity growth, it's a bias in favour of  
8 the company.

9 Now, where that is most important is capital  
10 because, you know, unless you know for sure what the  
11 trend in vegetation management productivity is, this  
12 isn't necessarily bias against the company, but for  
13 capital, it for sure is. You know, when companies  
14 have asked for money due to highway relocations of  
15 their facilities or they have a *panne majeure*, these  
16 are costs that the companies and the sample are  
17 incurring all the time and there not itemized, so  
18 there basically getting paid extra money now and  
19 they enjoy a little bit lower X Factor every year  
20 because the other companies in the sample are  
21 incurring these costs occasionally just like they  
22 are.

23 Q. [32] Okay. Maybe put you headphones now.

24 A. Okay.

25 Q. [33] So my other question will be my last or maybe

1 two more questions. Okay. Est-ce que vous observez,  
2 à partir de votre expérience, une baisse de la  
3 productivité ces dernières années et je vais vous  
4 demandez de commenter, et si oui, à quoi croyez-vous  
5 que cette baisse soit attribuable en Amérique du  
6 Nord, en général, dans le secteur des utilités?

7 (10 h 35)

8 A. Okay. So, using my methodology, there has been only  
9 a very modest slowdown in productivity growth in the  
10 last few years. It pretty much could be explained  
11 just by the slower customer growth because customer  
12 growth, since the economy has been slowed down since  
13 the great recession, there has been materially  
14 slower customer growth and so when you consider the  
15 little bit of lost economies of scale, it amounts to  
16 about ten (10) basis points, ten (10), fifteen (15)  
17 basis points of lost scale economies due to that.

18 Now, my numbers have come down over the  
19 years but it's only, it's mainly because I just  
20 expanded the sample. Unlike Dr. Makholm who never  
21 changes his methodology, every time I have money  
22 funding, I'll try to think of some way to improve  
23 our methodology. So, in one recent project I had the  
24 money to get, put more companies into the sample.  
25 It turned out that the productivity growth was

1 slower. I'm not sure how pertinent than even is to  
2 Hydro-Québec, because they were mostly smaller  
3 companies and not gigantic companies like HQD. But  
4 in any event, that's the biggest reason that my  
5 numbers have come down over the years. But using my  
6 relatively stable methodology, which strips out this  
7 irrelevant trend in Eversource, irrelevant for  
8 calibrating HQD's X Factor. Now, there hasn't been  
9 much of a slowdown.

10 (10 h 35)

11 Q. **[34]** Et c'est le constat que vous faites à partir de  
12 la réalité de vos études. Est-ce que ces facteurs-là  
13 sont également applicables à HQD?

14 A. Well, I have applied them and that's why I'm saying  
15 zero point three percent (0.3 %) as opposed to the  
16 kind of point nine (0.9) numbers that I was  
17 testifying to a few years ago in places like British  
18 Columbia. I mean my numbers have come down some and  
19 I've duly recommended lower... I had lower X Factor  
20 recommendations because of that. Similarly, my  
21 philosophy about stretch factors evolved over the  
22 years and in a way that lowered them somewhat. I  
23 used to maybe have advocate point five (.5) stretch  
24 factors, now I'm in a situation like this more  
25 likely to say something like point two (.2). But

1 it's just, you know, this isn't, you know, you learn  
2 a lot over the years. It's a complicated field and  
3 you know, it's appropriate to evolve your thinking  
4 with time.

5 Q. [35] O.K. À votre connaissance, est-ce qu'il y des  
6 investissements majeurs récents dans le  
7 renouvellement des compteurs chez les Distributeurs  
8 Américains, un peu comme au Québec les LAD? Est-ce  
9 que ça, ça peut avoir affecté négativement la  
10 productivité observée dans votre étude?

11 A. Yes. That's a good question and it was on the tip of  
12 my tongue to mention that and then I forgot. Yeah, I  
13 mean, one thing that's happened in recent years has  
14 been this average automated metering infrastructure  
15 investments, there's probably some other smart grid  
16 investments, they don't amount to much yet. But you  
17 know, that probably does slow productivity growth in  
18 the short-run for some of the utilities and as  
19 you're able associate, Mr. Gosselin, points out,  
20 when you do the average AMI, that sometimes the  
21 productivity benefits are some years after the  
22 installation of them and that seems to be the case  
23 for Hydro-Québec as well. They're more on the  
24 horizon, many of the benefits and so yeah, I think  
25 that has been one of the contributing Factors.

1                   That said, I mean, there hasn't been that  
2 much of a deterioration in O&M productivity. The  
3 utilities and utilities witnesses are always looking  
4 for their evidence that, you know, were in some sort  
5 of a cycle where now, gosh darnet! we're going to  
6 have to spend a lot of money on cap X, and it just  
7 has never really happened. There hasn't been that  
8 big of a upturn in capital spending.

9                   And that reminds of something. There are a  
10 lot of things that Mr. Coyne said yesterday that I  
11 didn't choose to specifically rebutt, but made some  
12 implications that there's some sort of a cycle in  
13 productivity of the power distribution industry.  
14 There might be a cycle and we're witnessing the  
15 downturn part of the cycle. I know of no such cycle.  
16 What I see is that it just so happens that for  
17 various reasons there was a plunge in the growth of  
18 volumes and peak load. That's not part of a cycle,  
19 that's a secular trend of some sort in my view. The  
20 only kinds of companies that might have a cycle  
21 would be companies maybe like in Alberta, where they  
22 a very big boom and bust economy and every once in a  
23 while Calgary and Edmonton grow by twenty percent  
24 (20 %) in five years. Then, you know, there could be  
25 a ripple effect from that down the road, but

1 generally speaking, I'm not aware of cycles in  
2 productivity in this and actually in any other  
3 utility industry.

4 Q. **[36]** And really last question. So, again, the major  
5 capital investment we went through in Québec with  
6 the metering, a large amount in a short period of  
7 time. I think you've referred to that, but I'm not  
8 sure, is that common in the US these days?

9 A. Oh, yes, I didn't answer that part of your question.  
10 It's less common but it's common, but it's less... I  
11 mean, not everyone has done it by any stretch of the  
12 imagination. For example, in New York, they're just  
13 getting around to doing that in most of the  
14 utilities. In the prosperous state of New York they  
15 are just getting around to that. So, there are many  
16 states that don't have that yet, but a goodly number  
17 do.

18 Q. **[37]** O.K. Merci.

19 (10 h 40)

20 LA PRÉSIDENTE :

21 Merci beaucoup Maître Turmel. Je vais demander à  
22 Maître David. Bonjour.

23 CONTRE-INTERROGÉS PAR Me ÉRIC DAVID:

24 Q. **[38]** Alors, bonjour, Éric David pour Option  
25 Consommateurs. Bonjour au panel. Good morning, Dr.

1 Lowry.

2 I have a few brief questions, clarifications  
3 I'd like to get. If you could turn to page 60 of  
4 your report, which is filed under the number AQCIE-  
5 32, so, I'm on page 60. You state at the end of the  
6 first paragraph, and I quote:

7 The decision on whether to Y Factor  
8 retirements costs should depend upon  
9 the extent to which the MRI protects  
10 Hydro-Québec from other kinds of risks.

11 Can you explain why this should be so?

12 A. Well, an important issue in the design of an MRI is  
13 that there be a reasonable amount of risk for the  
14 utility. Of course, customers like it when the  
15 utility assumes risk. If the utility assumes too  
16 much risk, it can be unfair to them. It might be  
17 that they allowed return on equity is not  
18 appropriately adjusted to reflect that. So,  
19 naturally, there's a push and shove between the  
20 utilities and the consumers and the utilities like  
21 to push off the risk into the Y Factors and the  
22 Z Factors. They also like to push off the rapidly  
23 growing cost into the Y Factors and the Z Factors,  
24 and that's more, gets into this area of the implicit  
25 X Factor issue.

1                   So, that's, you know, that's the situation.  
2                   And so, when you consider, you want to guard against  
3                   undue risk that could raise the company's cost of  
4                   equity and ultimately utility consumers have to pay  
5                   for it. You also don't want to be unfair to the  
6                   utility. So, therefore you need to consider all the  
7                   provisions of the plan to see, you know, was there  
8                   too much risk.

9                   (10 h 42)

10                   Now, in the current plan, well, the company  
11                   is not known to be looking for any kind of a cap X  
12                   surge, or for that matter, an O&M cost surge, so you  
13                   know, indexing pretty much does apply... you know,  
14                   they're a good candidate for this sort of index  
15                   thing that also seems to be in line with they're a  
16                   good candidate for this sort of index thing that  
17                   also seems to be in line with the law.

18                   In addition, as I've said, there are a  
19                   number of provisions that tend to help the utility,  
20                   and that reduced its risk. I mean, one of the  
21                   biggest risks it would face under this plan would be  
22                   an increase in the weighted average cost to capital.  
23                   Well, the Régie proposes to, you know, address that  
24                   a hundred percent.

25                   Also, labour costs are subject to a separate

1 index, and so all those things tend to suggest  
2 reduced risk, and *pannes majeures* are also taken  
3 care of, or likely would be taken care of. So, when  
4 you're looking at what's left, I mean, the  
5 retirement cost is a volatile cost, it's a large  
6 cost. A lot of the volatility is due to volatile  
7 markets, and so, you know, it might or might not be  
8 a sensible candidate for Y Factor treatment. And  
9 since it's right on the margin, it's not surprising  
10 that, you know, many plans don't have Y Factor, and  
11 then again, other plans do.

12 Q. [39] Okay, thank you. On the same page, at the  
13 beginning of the first paragraph, I simply wanted to  
14 know, you state that Y Factoring or retirement cost  
15 is a judgment call. Obviously your report was filed  
16 in early January. Has any of the evidence that's  
17 been presented in the current hearing changed your  
18 view on this subject?

19 A. No, not really.

20 Q. [40] Okay. The next topic I'd like to address is the  
21 issue of...

22 A. By the way, one little thing has, and that is it's  
23 come up that Hydro-Québec's *combustibles* cost is  
24 about four percent (4%) of the revenue requirement  
25 that it might apply to, and that turns out to be

1 about the same as the weight on gasoline in the IPC,  
2 and we did the research that showed that there's a  
3 high degree of correlation between diesel prices and  
4 gasoline prices, so that's a new thing that makes me  
5 think that, you know, probably the IPC could, for  
6 Québec, could handle the risk on the *combustibles*  
7 and make a Y Factor of that unnecessary.

8 Now, the more Y things that the Commission  
9 does agree to Y Factor, if they were to change their  
10 mind and listen to, for example, Hydro Québec's  
11 proposal to Y Factor the vegetation management  
12 expenses, then that might argue against... that  
13 would be an argument against also Y Factoring the  
14 pensions.

15 Q. [41] Okay. On that issue of vegetation management,  
16 on page 60 of your report, you state at the end of  
17 the second paragraph that:

18 Vegetation management is rarely Y  
19 Factored for MRIs for electric  
20 utilities.

21 I simply wanted to know if you're aware of the fact  
22 that, in this current case, which is partly under  
23 advisement, Hydro-Québec is asking for the Régie to  
24 increase its funding for vegetation management for  
25 two thousand eighteen (2018) and the following

1 years, in order to shorten its return cycle. Are you  
2 aware of this fact?

3 A. Yes, I am.

4 Q. **[42]** Okay. And does that fact change your  
5 recommendation that vegetation management should be  
6 covered by the formula?

7 A. No, but it should be noted that if it's not going to  
8 be Y Factored, then they're going to have this  
9 incentive to have, just after asking for a big  
10 increase, to not spend that money after all. And you  
11 have to live with that consequence that they  
12 might... the incentive as to change their mind as to  
13 just how much they needed for that.

14 This has happened again and again in British  
15 regulation, where things are based on cost  
16 forecasts, and you know, the revenue cap is based on  
17 cost forecasts, and they will propose a big dollar  
18 figure, and then, after the plan starts, and  
19 incentives kick in, oh, it turned out they didn't  
20 need that much money after all. And sometimes  
21 they're all accused just of having misrepresented  
22 the need, but it's partly that, but partly the fact  
23 that, under the incentives, they may realize that  
24 they needed less money than they thought.

25 (10 h 48)

1 Q. [43] Alright. I'd like to go on to another topic.  
2 It was touched upon by my colleague Maître Turmel,  
3 but I wanted to clarify further the interplay  
4 between the materiality thresholds and deferral  
5 accounts. And I refer more specifically to your  
6 answer to the Régie's second IR, I believe. Yes,  
7 second IR, which is AQCIE-37, so it's your answer,  
8 and I'm on page 16, and it's the answer to question  
9 4.1, and more specifically, the last paragraph of  
10 page 16. And I'll read the quote, so that it's on  
11 record, and this is what I'd like to clarify. So:

12 In its January 2018 report, PEG  
13 provided an outline for the rate-making  
14 treatment of Y Factors. PEG would like  
15 to clarify this outline. The  
16 materiality threshold and related dead  
17 zones should be applicable only to Y  
18 Factors that do not result from pass  
19 through costs paid to 3rd parties.  
20 This exception would allow all charges  
21 paid to HQP and HQT to be recovered in  
22 full. All costs incurred for  
23 conservation and demand management  
24 programs should be recovered in full.  
25 All other Y Factors would be subject to

1 the \$15 million materiality threshold.  
2 The first \$15 million of costs (or, as  
3 applicable, cost variances) would not  
4 be recoverable from customers. The \$15  
5 million threshold would be escalated  
6 annually by the revenue cap index.

7 Am I correct to understand that you're proposing  
8 basically two types of thresholds. The first one  
9 being a threshold to determine whether a cost can  
10 qualify as a Y Factor, and the second threshold  
11 being to determine whether a deferral account is  
12 justified. In other words, only where there is a  
13 fifteen million dollar (\$15M) difference between  
14 forecasted and real costs.

15 A. Well, that's a good question, and I have to say that  
16 I had intended it only to apply to the variances  
17 without passing judgment on the size of their cost  
18 account. It would be reasonable for the Régie to  
19 also add that double use of the fifteen million  
20 dollars (\$15M), but my initial intent was not to use  
21 it as screening for the fifteen (15)... for just the  
22 size of the cost category, but it would not be  
23 unreasonable for the Régie to take that extra step.

24 Q. **[44]** And would you recommend that all deferral  
25 accounts related to Y Factored costs be subject to

1 the fifteen million dollar (\$15M) threshold?

2 A. Well, as a practical matter, it would actually only  
3 apply, under my recommendations, it would only apply  
4 to retirement costs if retirement costs were  
5 Y Factored, because so many of the other categories  
6 would not be subject to the threshold treatment.  
7 And I should add to that list, I'd mentioned here...  
8 that I'd mentioned in the answer to this question  
9 upon further reflection, the weather variance  
10 account I don't think should be subject to that  
11 threshold; the low income programs should not be  
12 subject to that threshold; and the weighted average  
13 cost of capital also should not be subject to that  
14 threshold. So, it's really just, under my views,  
15 possibly the pensions that would actually be subject  
16 to that.

17 Q. **[45]** And would the fifteen million dollar (\$15M)  
18 threshold tests also apply to deferral accounts  
19 related to Z Factors?

20 A. Yes.

21 Q. **[46]** Okay. My last question is regarding the I  
22 Factor. And I refer to Hydro-Québec's PowerPoint  
23 presentation on the first day of the hearing, which  
24 was filed under B-207. I don't know if it's possible  
25 to put that on the screen, or if not, if you have a

1 paper copy. Well, perhaps I can ask the question  
2 without you having it in front of you and if you  
3 need it...

4 A. Let's start...

5 Q. [47] ... then you can tell us.

6 A. Yes.

7 Q. [48] Okay. So, basically, I'm on slide number 14,  
8 for the record, it's Hydro-Québec's proposal for the  
9 three sub-components for the I Factor. And the first  
10 sub-component, in French, is *Indice à pondération*  
11 *fixe de la rémunération horaire au Québec*. So, I  
12 simply wanted to know what your thoughts were on  
13 using a fixed weighted index for wages?

14 A. Yes, so what the Régie has proposed was to use  
15 average weekly earnings, and I don't recall whether  
16 they said it would be inclusive or exclusive of the  
17 overtime. There's two choices there, and I would  
18 say, of the two, not overtime. Because there is a  
19 general problem that Hydro-Québec refers to about  
20 the aggregation bias in average weekly earnings. So,  
21 the more you can standardize the cost trends in the  
22 various cost categories, the better.

23 (10 h 52)

24 So, then they even go further and they say  
25 let's use the fixed weight labour price index, which

1 is actually for the hourly earnings and not for  
2 average weekly earnings. Now, I think they're right  
3 that it's probably a more accurate measure of the  
4 labour price trend and in our own research,  
5 productivity research in the United States, I  
6 believe that we tend to use fixed weight labour  
7 price indexes.

8 So, I would not... I think it's a reasonable  
9 proposal on their part, but what the Commission has  
10 proposed is what is actually used elsewhere in  
11 Canada, so that's also reasonable.

12 Q. [49] Okay. I thank you. I have no further questions.

13 LA PRÉSIDENTE:

14 Merci beaucoup, Maître David. J'ai Maître Thibault-  
15 Bédard, pour la RNCREQ.

16 CONTRE-INTERROGÉS PAR Me PRUNELLE THIBAUT-BÉDARD:

17 Q. [50] Bonjour. Prunelle Thibault-Bédard pour le  
18 RNCREQ. Hello, Mr. Lowry. I have two very short line  
19 of questions. My first one is about *combustibles*  
20 costs.

21 You recall that in the decision D-2017-43,  
22 the Régie determined that the *combustibles* should be  
23 included in the formula, however HQD has again asked  
24 that it be Y Factored.

25 In our cross-examination of HQD, we raised

1 the question of projects similar to the Quaqtaq  
2 project, which involves solar generation that is  
3 owned by HQD in one of the northern villages. HQD  
4 acknowledged that the capital costs of this project  
5 are well under ten million (10M), and so the annual  
6 capital costs resulting from it would necessarily be  
7 included in the formula.

8           Would you agree that, if *combustibles* were  
9 Y Factored, HQD would not derive any direct  
10 financial benefit from the resulting reduction in  
11 fuel consumption from such project?

12 A. Yes.

13 Q. **[51]** Thank you. So, if HQD has to absorb the capital  
14 costs of the solar project, but gets no benefit from  
15 reducing fuel use, would you agree that under such a  
16 system, there would be a disincentive to carry out  
17 this type of project in *réseaux autonomes*?

18 A. Well, unless it was also subject to Y Factor  
19 treatment, yes, there would be a disincentive.

20 Q. **[52]** I believe that HQD's arguments to treat  
21 *combustibles* as Y Factor is based largely on its  
22 lack of control over world fuel prices. On your  
23 slide 26, you described two different inflation  
24 measures that could be used, depending on whether or  
25 not *combustibles* is Y Factored. You suggest that, if

1 *combustibles* is not Y Factored, the inflation  
2 measures should be based on an average weekly  
3 earnings, plus IPC Québec.

4 Just to make sure I understood your answer  
5 right, because you spoke about this with Mr. David,  
6 in your view, the use of this inflation measure,  
7 would it be sufficient to protect HQD and consumers  
8 from price swings in the fuel market?

9 A. You mean the use of IPC Québec?

10 Q. **[53]** Yes.

11 A. It seems that that's the case. The one little  
12 concern is that the price of gasoline is not as  
13 highly correlated as we might like with the price of  
14 the heavier fuel oils that, I guess, are used a few  
15 places; I'm wondering maybe in the Madeleine  
16 Islands, where you can ship it in.

17 But even at that, if you look at the  
18 historical prices of the mazout, it's my  
19 understanding that there was just, in the last  
20 couple of years, that the series diverted  
21 substantially from each other, and I'm not sure what  
22 the reason for that was that believed the price of  
23 the mazout fell relative to the price of gasoline.  
24 But typically, even that has been a pretty good  
25 tracking experience.

1 Q. [54] Just to clarify, in the northern community, it  
2 is diesel that is being used, and not mazout; does  
3 that affect your answer?

4 (10 h 57)

5 A. Yes, it helps my answer, because if you're talking  
6 about the diesel, that it does, you know, the... my  
7 research which admittedly only was using Canada or  
8 Québec province wide diesel price data, that there's  
9 a pretty good correlation there such that IPC Québec  
10 would do a reasonably good.

11 Q. [55] Thank you. My second line of question is about  
12 determining the X Factor. One area of descent  
13 between you and Mr. Coyne is the studies that should  
14 or should not be considered in determining the  
15 X Factor. Mr. Coyne selected five studies and  
16 derived an X Factor by using the following method  
17 which I quote from the notes of Wednesday's hearing,  
18 on page 200.

19 We look at the means and the medians of  
20 those studies and the judgment of point  
21 seven five (.75) is it's between these  
22 two.

23 We also note, looking at Mr. Coyne's presentation,  
24 slide 4, that the figure he used for each study is  
25 in fact the average of the range included in that

1 study.

2 Here, you might not agree with this method  
3 of calculation, but in the event that the Régie does  
4 agree with that method, we would like the Régie to  
5 be provided with an alternative result for the  
6 X Factor based on the studies you deem relevant. So  
7 this way we believe the Régie would be better able  
8 to appreciate the concrete result of relying on some  
9 studies more than others using the same method of  
10 calculation.

11 That, in mind, would you be willing, as an  
12 undertaking, to apply Mr. Coyne's method of  
13 calculation to calculate the X Factors, but on the  
14 studies your deem relevant, so we have a point of  
15 comparison. More specifically, what we would like is  
16 if you could list studies to be included in your  
17 sample, define briefly the criteria you use to  
18 include them or not in your sample, then in copying  
19 Mr. Coyne's method of calculation, just identify the  
20 range average of each one and calculate the median  
21 and mean of the values. Is it something we could ask  
22 you to do?

23 A. Well, I'd be happy to do that, but I would note that  
24 I don't share Mr. Coyne's enthusiasm for just using  
25 studies. In fact, it's funny that he likes to focus

1 on the studies and then says - we don't want to  
2 relitigate past proceedings, because if don't want  
3 to relitigate past proceedings, you'll look at the  
4 decision in the proceedings and not the studies.

5 When he looks at the studies in Alberta for  
6 example, he puts really more weight on those and the  
7 fact that it happened that two utilities were  
8 willing to bankroll studies than on the Commission's  
9 own decisions. So, I can do this, but there's going  
10 to be many fewer studies in my survey that I think  
11 are pertinent and the whole idea of just using  
12 studies is I think controversial.

13 Q. [56] I take note of your comment, thank you.  
14 And since you mentioned there will be fewer studies,  
15 if you could just please very quickly specify why  
16 such studies end up in your sample or not, so we  
17 understand the basis of your...

18 LA PRÉSIDENTE :

19 C'est peut-être moi qui va avoir une objection à cet  
20 engagement-là, parce là vous lui demandez beaucoup  
21 de travail. Si vous voulez partir des études qui  
22 sont déjà dans la preuve et dire quelles études, il  
23 pense qui sont pertinentes ou pas pertinentes, ça me  
24 va, mais là pour recommencer une étude pour dire  
25 quelles études peuvent être... On est rendu à

1 l'audience, là. C'est pas... là, ça veut dire qu'il  
2 va y avoir un autre droit de réplique. Est-ce qu'on  
3 va venir réinterroger là-dessus, là? Alors, si vous  
4 voulez poser vos questions à savoir, parmi les  
5 études qui sont dans le dossier, lesquelles il  
6 considère pertinentes et pas pertinentes, ça, il me  
7 semble que ce serait déjà plus pertinent ou adéquat  
8 que de recommencer à ressortir peut-être des  
9 nouvelles études qui n'ont jamais été soumis au  
10 dossier. Je ne sais pas si c'est... Je vois maître  
11 Sarault qui s'avance.

12 (11 h 02)

13 Me PRUNELLE THIBAUT-BÉDARD :

14 C'était notre intention. On s'est peut-être fait mal  
15 comprendre. Ce n'est pas de faire de la nouvelle  
16 recherche. Mais étant donné la dissension entre les  
17 experts sur les études pertinentes, de ne retenir  
18 que les études jugées pertinentes par monsieur Lowry  
19 et de simplement faire une comparaison avec, dans ce  
20 cas-ci, appliquant la méthode de calcul de monsieur  
21 Coyne, quel serait le résultat afin d'offrir un  
22 comparatif?

23 LA PRÉSIDENTE :

24 Maître Sarault?

25

1 Me GUY SARAULT :

2 J'ai, comme vous, de la difficulté avec cet  
3 engagement en particulier, non seulement pour les  
4 raisons que vous avez évoquées, mais le désaccord  
5 entre le docteur Coyne et le docteur Lowry est  
6 beaucoup plus profond que le choix d'études. Je  
7 pense que ma compréhension du témoignage du docteur  
8 Lowry, c'est qu'il est contre le principe de  
9 s'appuyer sur des études plutôt que sur des  
10 décisions ou sur des analyses qu'il peut lui-même  
11 effectuer.

12 Alors, on est... Là, ce n'est pas, je  
13 choisis l'étude A, B, C comme étant pertinente. Lui,  
14 il est contre ça conceptuellement. Alors, moi, je  
15 pense que la prémisse de l'engagement demande au  
16 témoin de faire un exercice qui est complètement  
17 contradictoire et incompatible avec l'approche  
18 préconisée dans sa preuve.

19 LA PRÉSIDENTE :

20 Maître Thibault-Bédard, avez-vous quelque chose  
21 d'autre?

22 Me PRUNELLE THIBAUT-BÉDARD :

23 C'était uniquement dans la mesure où ça pourrait  
24 servir la Régie dans son appréciation de l'impact de  
25 considérer une étude ou non dans l'éventualité où

1 vous étiez d'accord avec la méthode recommandée par  
2 monsieur Coyne. C'était l'objectif de notre demande.

3 LA PRÉSIDENTE :

4 Je pense que, à ce stade-ci du dossier, je pense  
5 qu'on a assez d'informations où on pourra trancher à  
6 la lumière des informations déjà données par le  
7 docteur Coyne et le docteur Lowry.

8 Me PRUNELLE THIBAUT-BÉDARD :

9 D'accord. Donc ça met fin à mes questions. Je vous  
10 remercie. Thank you, Mister Lowry.

11 LA PRÉSIDENTE :

12 Je vous remercie, Maître Thibault-Bédard. Là, c'est  
13 à maître Neuman pour SÉ-AQLPA.

14 (11 h 05)

15 CONTRE-INTERROGÉS PAR Me DOMINIQUE NEUMAN :

16 Bonjour, Mesdames les Présidentes, Monsieur le  
17 Régisseur. Bonjour messieurs. Dominique Neuman pour  
18 Stratégies énergétiques. One or two questions to Dr.  
19 Lowry, and I'll ask them in English.

20 Q. **[57]** As you know, Dr. Lowry, the Régie had initially  
21 considered a one point five percent (1.5%) X Factor,  
22 however both Dr. Coyne and yourself agree to  
23 different degrees that industry-wide productivity is  
24 going downwards, and you both therefore had  
25 recommended an X Factor which is lower than the one

1 point five percent (1.5%) earlier considered by the  
2 Régie for various reasons.

3 Having said that, the goal of an incentive  
4 mechanism is to provide a method for promoting  
5 productivity increase, and more efficiency in that  
6 regard. Consequently, would you agree that it could  
7 be a sound practice, that it may be a sound practice  
8 to try to isolate those items that are problematic  
9 and less subject to productivity increase out of the  
10 items that are subject to the Y minus X formula?

11 A. To remove cost categories that have slow-growing  
12 productivity, is that what...

13 Me DOMINIQUE NEUMAN:

14 Q. [58] Yes, those that are problematic for various  
15 reasons, and that encompasses the various reasons  
16 that have been given to explain the lower  
17 productivity that we have witnessed recently in  
18 North America?

19 A. Well, again, I don't see a large slowdown in  
20 productivity in North America, and the slowdown I do  
21 see, could pretty easily be explained as the result  
22 of just less opportunities for scale economies. So,  
23 and I do think it's the case that you don't usually  
24 throw out a cost category that has high cost growth,  
25 unless for some reason it's not encompassed by the

1 inflation measure, and the multi-factor productivity  
2 index. As Mr. Coyne said yesterday, some costs grow  
3 more rapidly, some costs grow more slowly, so there  
4 has to be an awfully good reason to exclude a cost,  
5 and then if you do, you'd have to go back and, to  
6 the best of your ability, reconsider the  
7 productivity trend with that stripped out.

8 Now, the one point five percent (1.5%)  
9 applied to *charges d'exploitation*. In the United  
10 States, we also see somewhat higher productivity for  
11 these *charges d'exploitation* than we do for capital;  
12 not by a lot, but it's noteworthy. I mean, in my own  
13 recent study for a Berkeley lab, for example, I  
14 think the productivity trend of what we call O&M  
15 expenses was more like point seven seven (.77), and  
16 it would actually be somewhat higher here for a few  
17 reasons, like the fact that they did the AMI in the  
18 recent years.

19 So, I mean, I guess I'm not... you know,  
20 apart from the exclusions that I've proposed, I do  
21 not see the need for that. But an example of what  
22 you're talking about is, let's say the capital, a  
23 big chunk of capital was taken out, and then, as  
24 I've said, I think the X Factor would have to go up  
25 if you were excluding, if you were having separate

1 rate-making treatment of a rapidly-growing capital  
2 expenditures, then the X Factor would go up for  
3 having done so, up from the base productivity trend  
4 of the industry.

5 (11 h 09)

6 Q. [59] Yes, but, anyway, that's exactly the kind of  
7 example that would fit what I have in mind, and,  
8 well, to rephrase my question, the idea would be to  
9 have a set of costs, which would be the largest set  
10 of costs that are subject to the Y minus X  
11 trajectory, to use a word that had been used by  
12 Hydro-Québec, and that are open for improvements,  
13 efficiency improvements and productivity growth, and  
14 those other items that are problematic that this  
15 though the mechanism if it's possible and we have  
16 criteria for Y factors, Z factors, to remove them  
17 from that group, so that they would be treated  
18 separately and not contaminate the general structure  
19 of the Y minus X.

20 A. Well, one implication of what you're proposing is  
21 that the costs that are rising most rapidly would  
22 have the least incentives to contain them and I  
23 think that's something to worry about. As well that  
24 you can create thereby opportunities to maybe spend  
25 more on capital in order to spend too much money on

1 capital in order to save on your O&M expenses which  
2 not only would not be cost minimizing but it might  
3 be unfair to the workers of Hydro-Québec that they  
4 would have an inappropriately strong incentives to  
5 contain their costs.

6 Q. [60] Another approach that I would your opinion on  
7 that approach which in the ways reflected by the...  
8 in the first part of the hearing in this case, which  
9 was held in December. As you may know, in December,  
10 Hydro-Québec Distribution identified certain  
11 elements that were, but you could say lacking in the  
12 yearly revenue and proposed various adjustments on  
13 various items, some of them we supported, some of  
14 them we didn't. So, through that process Hydro-  
15 Québec suggested to the Régie to readjust, to  
16 increase the base-year that would serve for the  
17 future mechanism, and our understanding is that if  
18 that base-year is readjusted in such manner, then it  
19 removes or reduces the problematic aspects from  
20 these items during the duration of the mechanism.  
21 The mechanism can be more easily applied that base-  
22 year if we've already dealt with those missing  
23 elements and readjusted the base-year accordingly.  
24 Do you understand? So, what's your feeling about  
25 that approach?

1 A. Well, perhaps that's part of what the company was  
2 thinking when they asked now for a substantial  
3 increase in the vegetation management expenses. That  
4 they create a base that they can live with for the  
5 future. I mean, it's a process and in fact that's  
6 somewhat subject to abuse, but it is another way of  
7 making allowances. And it would be an alternative  
8 that has better incentives for the company than to  
9 have a Y factor. At the same time, it puts more  
10 pressure on the Régie to judge on the prudence of  
11 these matters and probably right now, there having  
12 to think long and hard about this vegetation  
13 management increase knowing that the company did  
14 have an incentive to ramp it up now, at the last  
15 minute. Something that they didn't fit to do before,  
16 but now suddenly they realize it needs to be higher.  
17 So, you know, it just puts more pressure on the  
18 commission to have the right, you know, to get that  
19 particular part of the revenue requirement right.

20 Q. [61] Thank you very much.

21 LA PRÉSIDENTE :

22 Merci beaucoup Maître Neuman. Nous serions à la  
23 portion Hydro. J'avais zéro moi ici. Bonjour  
24 Maître Rousseau. Vous avez changé d'idée?

25

1 CONTRE-INTERROGÉS Me CATHERINE ROUSSEAU :

2 Q. **[62]** Bonjour. Catherine Rousseau pour l'Union des  
3 municipalités du Québec. Ma question s'adresse à  
4 Monsieur Lowry. Je n'ai en fait, plutôt une question  
5 de clarification. Question de clarification. Nous  
6 sommes à la bonne planche, donc, ça concerne le  
7 facteur Y. J'aimerais, en fait, comprendre, ça va  
8 concerner, me question concerne la question des  
9 coûts des régimes de retraite. Quand vous dites, bon  
10 l'application sur la planche on voit l'application  
11 d'un seuil de matérialité. Fifteen millions (15 M)  
12 for each cost category including dead zone. Je ne  
13 suis pas certaine de comprendre qu'est-ce que vous  
14 voulez dire par cette fameuse « dead zone ». Est-ce  
15 que c'est possible pour vous de préciser comment ça  
16 pourrait se matérialiser en prenant pour hypothèse  
17 que beaucoup de régimes de retraite seraient  
18 effectivement traités en facteur Y?

19 (11 h 15

20 A. Okay. Well, to say that something is a Y factor just  
21 means it's subject to some separate or supplemental  
22 rate-making treatments, so it doesn't imply anything  
23 else. There are a lot of different ways that you can  
24 do a Y factor. Just like with costs trackers in  
25 general, there are a lot of ways that you can do a

1 cost track, or what we call cost trackers in the US.  
2 You might call us the CER and there are incentivized  
3 CERs and there are ones that aren't and there are,  
4 you know, a number of examples of incentivized CERs.  
5 You see them particularly in power and field  
6 procurement, for example, in the United States.  
7 There are a number of utilities that have had those  
8 and often times they propose them. So, the idea here  
9 is just that, you know, the... Just because  
10 something is subject to a Y factor, doesn't mean  
11 that all variances are recovered dollar for dollar.  
12 You get to recover a portion of the variance and it  
13 could be done on a percentage basis or it could be  
14 done on a materiality threshold basis. So, the  
15 percentage approach is fine too, you would have to  
16 figure out an analogous percentage for that purpose.  
17 So, what I propose is just to keep it simpler  
18 whether to go with, you know, go with Régie's  
19 fifteen million dollars (15 M\$) threshold.

20 So, I mean, we've just discussed an example  
21 of what happens if costs fails from eighty (80) to  
22 sixty (60). Let's just talk about the alternative.  
23 The cost that's in the revenue requirement is sixty  
24 (60) and it goes to eighty (80). Now, in that case,  
25 the company is going to absorb the first fifteen

1 million (15 M) and customers will pay five million  
2 (5 M) as a consequence of that variance.

3 Q. [63] Merci beaucoup. Ça complète.

4 (11 h 17)

5 DISCUSSION

6 LA PRÉSIDENTE :

7 Je vous remercie beaucoup, Maître Rousseau. Alors,  
8 comme on mentionnait un petit peu plus tôt avant la  
9 pause, on prendrait une pause lunch plus longue, ce  
10 qui permettrait... ce qui vous permettrait de voir  
11 l'ensemble de vos questions. Vous aviez mentionné  
12 une heure.

13 Me JEAN-OLIVIER TREMBLAY :

14 Oui, on est pas mal dans les eaux d'une heure.

15 Évidemment...

16 LA PRÉSIDENTE :

17 Ça va dépendre de vos discussions.

18 Me JEAN-OLIVIER TREMBLAY :

19 Évidemment, ça dépend de plusieurs choses. Je  
20 voulais faire également un commentaire. Maître  
21 Turmel et moi, on ne s'est pas levé pour s'objecter  
22 des questions suggestives, là. Ce n'est pas le cas  
23 de maître Rousseau à la fin, mais il y a eu des  
24 questions très suggestives qui ont été posées. On ne  
25 s'est pas objecté, on va se contenter, si ça devient

1 un enjeu, de plaider la force probante de ces  
2 réponses-là en argumentation. Mais, évidemment, les  
3 avocats quand il y a ce genre de questions-là, on a  
4 un petit sursaut, mais on s'est retenu de  
5 s'objecter. Mais, cela étant dit, ça devrait être  
6 aux alentours d'un contre-interrogatoire de une  
7 heure pour monsieur Lowry.

8 LA PRÉSIDENTE :

9 Je vous remercie. Puis je pense qu'on va donner un  
10 petit peu de... la barrière de la langue dans  
11 certains cas, je pense qu'elle est réelle. Je pense  
12 que dans ce temps-là, la formulation de la question  
13 est faite au mieux de tout le monde pour qu'il  
14 puisse y avoir une compréhension entre l'avocat qui  
15 pose des questions et le témoin. Ça fait qu'on va...  
16 c'est dans ce sens-là que c'est pas... en tout cas,  
17 que je ne les ai pas prises personnellement comme  
18 étant des questions inappropriées ou posées de façon  
19 inappropriée, mais...

20 Me JEAN-OLIVIER TREMBLAY :

21 Mais, en fait, l'enjeu effectivement de la  
22 traduction en est un. On pense à des mots comme  
23 « Output measures » en français, personne ne l'a  
24 utilisé en français. Donc, on est conscient  
25 également de cet aspect de anglais-français.

1 LA PRÉSIDENTE :

2 Je vous remercie. Maître Sarault.

3 Me GUY SARAULT :

4 Deux remarques. Respectueusement, Maître Tremblay,  
5 même devant les tribunaux de droit commun, il est  
6 permis de poser des questions suggestives à un  
7 expert qui est là pour formuler une opinion et non  
8 pas pour témoigner sur des faits. Les questions  
9 suggestives sont interdites quand on veut colorer  
10 les faits avec l'aide de l'avocat. Mais, dans le cas  
11 d'un expert, d'ailleurs, la Régie a émis des  
12 directives, qui est neutre et impartial et qui est  
13 là pour donner son opinion professionnelle. Alors,  
14 on peut suggérer certains scénarios. On peut poser  
15 des questions hypothétiques à un expert, ce qui  
16 n'est pas le cas pour un témoin de fait, et caetera.

17 Deuxièmement, ici, le docteur Lowry et PEG  
18 ont été retenus pour l'ensemble des intervenants, ce  
19 qui ne veut pas dire nécessairement que, compte tenu  
20 que tous les intervenants sont... ont son rapport  
21 comme partie de la preuve globale de la communauté  
22 des intervenants, ça ne veut pas dire qu'ils sont  
23 d'accord avec tout ce qu'il dit dans son rapport et  
24 tout ce qu'il a témoigné.

25 Alors, ceux qui ont des réserves par rapport

1 à ce que docteur Lowry a présenté en preuve ont le  
2 droit de faire presque comme un contre-  
3 interrogatoire et même de proposer certains  
4 scénarios qui moussent plus leur propre chose, leur  
5 propre position.

6 Alors, pour ces deux motifs-là, je pense que  
7 l'objection de maître Tremblay ne tiendrait même pas  
8 la route devant la Cour supérieure. Merci.

9 LA PRÉSIDENTE :

10 Merci, Maître Sarault. Maître Turmel.

11 Me ANDRÉ TURMEL :

12 Je ne veux pas répéter ce que maître Sarault a dit,  
13 je suis d'accord avec ça. Moi, c'était autre chose,  
14 intendance. Notre témoin, monsieur Gosselin, devant  
15 l'horaire, va quitter pour Québec et je comprends  
16 qu'il va passer lundi à la FCEI.

17 LA PRÉSIDENTE :

18 Je pense qu'il est réaliste de croire que ni l'AHQ-  
19 ARQ ni la FCEI passeront aujourd'hui...

20 Me ANDRÉ TURMEL :

21 Parfait.

22 LA PRÉSIDENTE :

23 ... comme preuve. On va terminer PEG et puis je  
24 pense que...

25

1 Me ANDRÉ TURMEL :

2 Et la Régie. C'est-à-dire, oui, avec  
3 l'interrogatoire de la Régie, c'est ça?

4 LA PRÉSIDENTE :

5 Oui, oui, avec... Donc, on va finir la preuve, tout  
6 ce qui concerne l'AQCIE-CIFQ et on va finir la  
7 journée avec ça.

8 Me ANDRÉ TURMEL :

9 O.K.

10 LA PRÉSIDENTE :

11 Et on recommencera lundi avec l'AHQ-ARQ et la FCEI  
12 et continuer.

13 Me ANDRÉ TURMEL :

14 D'accord. Merci.

15 LA PRÉSIDENTE :

16 Je vous remercie. Maître Neuman.

17 Me DOMINIQUE NEUMAN :

18 Oui. Dominique Neuman pour Stratégies énergétiques.

19 Simplement une petite précision concernant une

20 remarque que maître Sarault vient de faire

21 concernant le statut de monsieur Lowry. Je me

22 rappelle les décisions initiales dans le 3897 quand

23 au fait qu'il n'y aurait un seul expert et qu'il

24 serait bénéfique à l'ensemble des participants.

25 Mais, concrètement, c'est l'expert de l'AQCIE-CIFQ

1 et il n'y a pas eu de collaboration en tout cas, en  
2 fait, on n'a pas été invité à lui poser des  
3 questions préalablement à la rédaction de son  
4 rapport. On n'a pas reçu son rapport avant qu'il  
5 soit déposé sur le site de la Régie et que tout le  
6 monde en prenne connaissance. Donc, simplement pour  
7 clarifier que nous n'avons pas eu le statut de  
8 mandants par rapport à cet expert. Même s'il a plein  
9 de qualité, mais ce n'était pas...

10 (11 h 22)

11 LA PRÉSIDENTE :

12 Vous faites juste le point de maître Sarault encore  
13 plus clair, je pense.

14 Me DOMINIQUE NEUMAN :

15 Absolument. O.K. Merci bien.

16 LA PRÉSIDENTE :

17 Je vous remercie.

18 Me GUY SARAULT :

19 Je peux vous assurer qu'il y a certains intervenants  
20 qui ont demandé, ils m'ont demandé : « Est-ce qu'on  
21 peut communiquer avec le docteur Lowry pour lui  
22 poser des questions ou et caetera? » Bien, j'ai dit  
23 que : « Il est l'expert neutre et indépendant de la  
24 communauté des intervenants. Faites ce que vous  
25 voulez. » Alors, si maître Neuman m'avait appelé,

1 j'aurais dit « oui ».

2 LA PRÉSIDENTE :

3 Je suis convaincue que vous n'avez pas bloqué  
4 sciemment l'accès à maître...

5 Me GUY SARAULT :

6 Du tout.

7 LA PRÉSIDENTE :

8 ... au docteur Lowry. Alors, je vous remercie.

9 Me JOCELYN B. ALLARD :

10 Madame la Présidente, juste pour... je m'excuse,  
11 mais là c'est parce que ça m'interpelle, là,  
12 c'est... Le projet même d'expertise, ce qui était  
13 préparé par le docteur Lowry a été partagé avec les  
14 autres intervenants. Alors, il a reçu des... bien  
15 là, il pourra le confirmer, mais il a reçu des  
16 commentaires des autres. Alors, je suis un peu  
17 surpris d'entendre ce que j'entends ce matin.

18 LA PRÉSIDENTE :

19 Je vous remercie. Écoutez, on n'en fera pas un  
20 immense débat là parce que je voyais maître Neuman  
21 s'approcher. On comprend, les temps ont été aussi  
22 plus courts pour certains. Je comprends que c'est  
23 pas tout le monde qui a pu avoir ou décidé d'avoir  
24 accès au docteur Lowry, mais ça fait le point de  
25 maître Sarault sur le contre-interrogatoire de

1 certains intervenants par rapport au docteur Lowry.  
2 Alors, là-dessus, on va prendre la pause lunch et on  
3 reviendra à une heure (13h 00).

4 SUSPENSION DE L'AUDIENCE

5 REPRISE DE L'AUDIENCE

6

7 \_\_\_\_\_  
(13 h 02)

8 LA PRÉSIDENTE :

9 Alors, rebonjour tout le monde. Nous sommes rendus à  
10 vous, Maître Tremblay.

11 CONTRE-INTERROGÉS PAR Me JEAN-OLIVIER TREMBLAY :

12 Q. **[64]** Alors, bon après-midi à tous. Alors, bonjour  
13 aux Membres du Panel. Jean-Olivier Tremblay,  
14 procureur pour le Distributeur. Alors, Monsieur  
15 Lowry, oui, je vais poser mes questions  
16 principalement en français. Il est possible qu'à  
17 certains moment,s je la pose en anglais en raison  
18 du... des fois du vocabulaire qu'on a utilisé plutôt  
19 en anglais au cours de la présente audience.

20 Alors, Monsieur Lowry, Dr Lowry, allo! Est-  
21 ce que vous avez pris connaissance de la preuve  
22 d'Hydro-Québec déposée au présent dossier ainsi que  
23 de toutes les réponses d'Hydro-Québec Distribution  
24 aux questions de la Régie et des intervenants?

25 A. I've read through everything once at some point,

1 including the proof.

2 Q. **[65]** Je crois que vous lisez le français, si je ne  
3 m'abuse?

4 A. Yes.

5 (13 h 04)

6 Q. **[66]** Vous étiez également présent dans la salle  
7 d'audience mercredi, le 7, et jeudi, le 8 février?

8 A. I was not present for all of the second day. Only  
9 half of the second day, I was present for I believe  
10 all of the first day.

11 Q. **[67]** Et les moments où vous n'étiez pas présent dans  
12 la salle, est-ce que vous avez écouté l'audience sur  
13 le web?

14 A. No.

15 Q. **[68]** Je vous réfère, en fait, c'est même pas aux  
16 réponses, c'est aux questions de l'AQCIE-CIFQ, sa  
17 demande de renseignements numéro 3 à HQD. Est-ce que  
18 vous confirmez que vous êtes l'auteur des questions  
19 qui ont été adressées à HQD dans cette demande de  
20 renseignements pour la partie des questions écrites  
21 en anglais.

22 A. By AQCIE-CIFQ yes, I mostly wrote them. Pretty much  
23 all.

24 Q. **[69]** Avez-vous également pris connaissance des  
25 réponses aux engagements formulés en audience au

1 Distributeur qui ont été fournis par écrit ou sur le  
2 site web de la Régie?

3 A. To the AQCIE questions, yes.

4 Q. [70] Non, à l'ensemble des engagements?

5 A. Yes, I believe I've read everything once as I've  
6 said.

7 Q. [71] Très bien. J'aimerais commencer par aborder un  
8 sujet précis qui est le sujet des mauvaises créances  
9 ou *bad debt*. Dans votre rapport, à la page 60, vous  
10 pouvez le prendre si vous le souhaitez, je vous lis  
11 l'extrait:

12 You mentioned in Québec, the risk of  
13 bad debt is limited by the low cost of  
14 the patrimonial power block.

15 Alors, vous vous souvenez de ça?

16 A. Of course, oui.

17 Q. [72] Par cette affirmation, est-ce que vous réferez  
18 aux faits que les tarifs d'Hydro-Québec Distribution  
19 sont bas en raison du bas coût du bloc patrimonial?  
20 Est-ce que c'était à ça que vous faisiez référence?

21 A. Yes, I think, they often make reference to their  
22 being... having some of the lowest prices in North  
23 America.

24 Q. [73] Okay. C'est à votre connaissance qu'au Québec,  
25 il y a une particularité qui a trait au fait que

1 plusieurs personnes utilisent l'électricité pour le  
2 chauffage, n'est-ce pas?

3 A. Yes, I do know that.

4 Q. **[74]** Est-ce que vous êtes capable de m'indiquer  
5 selon votre connaissance, le pourcentage des foyers  
6 québécois qui utilisent l'électricité pour le  
7 chauffage?

8 A. Well, I've been a witness and consultant for Gas  
9 Metro as well as Hydro-Québec so, based on my  
10 experience, I would think it's ninety percent (90 %)   
11 or maybe even a little more.

12 Q. **[75]** Okay, we'll live with that number. Vous êtes  
13 d'accord également pour dire que le chauffage à  
14 l'électricité augmente substantiellement la facture  
15 d'électricité?

16 A. Definitely.

17 Q. **[76]** Surtout en hiver.

18 A. Yes.

19 Q. **[77]** Alors, si je vous demande si vous connaissez  
20 quelle peut être la facture d'hiver, mensuelle, d'un  
21 ménage québécois qui chauffe à l'électricité pour  
22 une maison moyenne, de grandeur moyenne, est-ce que  
23 vous en avez une idée générale?

24 A. No, but I would think it would be about like a gas  
25 bill, but maybe a little less; otherwise, they

1           wouldn't be using electricity.

2       Q. **[78]** Hum, hum. Une facture de gaz, disons, plus la  
3       facture d'électricité dans ce cas si la personne  
4       chauffe à l'électricité, n'est-ce pas? Oui?

5       A. Yes.

6       Q. **[79]** Est-ce que c'est à votre connaissance qu'Hydro-  
7       Québec Distribution n'a pas le droit d'interrompre  
8       le service d'électricité pour non-paiement pendant  
9       l'hiver.

10      A. I will accept that subject to check.

11      Q. **[80]** Okay, donc vous n'en êtes pas certain?

12      A. No, I'm not certain of that but I was prepared to  
13      believe your statement.

14      (13 h 08)

15      Q. **[81]** O.K. En cas d'insolvabilité d'un client  
16      d'Hydro-Québec au niveau résidentiel, est-ce que  
17      vous avez une idée du montant moyen qui est dû par  
18      le client au moment de son insolvabilité à Hydro-  
19      Québec?

20      A. You mean what is their bill for the month?

21      Q. **[82]** Non, quelle est la dette accumulée. Donc, pas  
22      la facture courante, mais bien la dette accumulée au  
23      moment où il y a insolvabilité?

24      A. Oh... no, I don't know.

25      Q. **[83]** Okay. Je vous demanderais de prendre la page 26

1 de votre présentation de ce matin, l'acétate numéro  
2 25, celle où on voit écrit *Stretch Factor* en haut,  
3 voilà. Alors, vous mentionnez dans cet acétate, au  
4 deuxième aspect :

5 Cost containment incentives generated  
6 by this plant won't be strong

7 et vous mentionnez au deuxième acétate, le MTER ou  
8 le *earning sharing mechanism*. Alors, si je comprends  
9 bien, vous êtes d'avis que l'existence du MTER vient  
10 affaiblir, si on veut, les incitatifs qu'on peut  
11 retrouver dans le MRI pour HQD?

12 A. Yes, I agree.

13 Q. **[84]** N'êtes-vous pas en accord avec moi pour dire  
14 que le fait que le MTER, cependant soit asymétrique,  
15 vient un peu tempérer votre affirmation?

16 A. Yes, that would temper my affirmation.

17 Q. **[85]** Seriez-vous également d'accord pour dire que le  
18 fait que c'est MTER sans bande morte, donc *with no*  
19 *deadband*, viendrait également tempérer votre  
20 affirmation?

21 A. That I'm not so sure whether if either surplus or  
22 deficit earnings are not addressed, I'm not sure  
23 which matters more. So, I couldn't say that just  
24 because it's surpluses that it matters more.

25 Q. **[86]** Mais le fait que...

1 A. What does matter is that half the range is subject  
2 to sharing.

3 Q. [87] Oui. Donc, le fait que si je regarde du côté  
4 positif, donc en cas de surplus, qu'il n'y ait pas de  
5 bande morte ici, donc, ça ça serait de nature à  
6 venir tempérer votre affirmation. Laissons de côté  
7 si vous le voulez, la bande morte pour le côté  
8 déficit, là, pour les fins de la question.

9 A. Well, as I said, the fact that there is an MTER does  
10 weaken incentives. It's a little bit stronger since  
11 it doesn't apply to all earnings variances.

12 Q. [88] Hum, hum. Mais ma question porte spécifiquement  
13 sur le fait qu'il n'y ait pas de *deadband* en cas de  
14 surplus. Alors, ma question, c'est est-ce que c'est  
15 est-ce que c'est pas de nature à réduire la portée  
16 de votre affirmation que le *MRI plan* présente peu  
17 d'incitatifs finalement?

18 A. Well, that particular aspect, the absence of the  
19 dead band, does weaken incentives. I mean if there  
20 was a dead band, the incentives would be a little  
21 stronger, yes.

22 Q. [89] Merci. Je vais commencer avec des aspects que  
23 je crois vont être moins controversés, donc les  
24 points de... je vais tester avec vous certaines  
25 idées pour vérifier s'il y a des points de

1 convergence entre votre preuve et la preuve qui a  
2 été présentée antérieurement.

3 Alors, est-ce que vous confirmez d'abord,  
4 Monsieur Lowry, Dr. Lowry, que de déterminer le  
5 facteur X sur la base d'une tendance de l'industrie,  
6 que l'on constate au moyen d'études, et la méthode  
7 la plus communément utilisée par les régulateurs en  
8 Amérique du Nord?

9 (13 h 14)

10 A. It's to look at studies, you're saying is it  
11 appropriate to look at studies? Of course, that's  
12 one thing that you should look at. I think Mr. Coyne  
13 and I both agree that you can't solely look at the  
14 Commission decisions, but it pertinent to look at  
15 studies, partly because sometimes the Commission, as  
16 in the case of Alberta, disregarded a very useful  
17 study and then sometimes too there's a useful study  
18 that didn't go to a regulator at all that is worth  
19 factoring into the process of *jugement*.

20 Q. [90] Et ce que l'on cherche dans ces études, c'est  
21 de déterminer, n'est-ce pas, une tendance de  
22 l'industrie. Êtes-vous d'accord avec ça?

23 A. Well, you're looking for the trend in productivity  
24 but, I think, the *tendance* has a little different  
25 meaning that there is some change going on in the

1 numbers. In other words, that the trend itself is  
2 changing. And I'm not, I mean, there might be such a  
3 change afoot or there might not be. And what I've  
4 argued is that for considering the definition of  
5 productivity that's relevant in this case, there  
6 doesn't... there isn't much of a trend, there's not  
7 much of a change in the trend that's been happening  
8 and that's where I disagree with Mr. Coyne.

9 Q. [91] Mais ma question ne porte pas sur la prétention  
10 de monsieur Coyne. J'essaie simplement d'établir des  
11 éléments généraux avec vous.

12 A. Okay.

13 Q. [92] Je ne prétends pas, je n'aborde pas la question  
14 des changements dans les tendances de l'industrie.  
15 Simplement pour que, si vous êtes à l'aise de le  
16 faire, vous me confirmiez que ce que l'on recherche  
17 dans les études de productivité c'est de déterminer  
18 la tendance de l'industrie ou en anglais *Industry*  
19 *Trend*. On cherche des chiffres pour guider le  
20 jugement de la Régie.

21 A. The trend in the multi-factor productivity measured  
22 a certain way, yes.

23 Q. [93] Et vous confirmez que c'est l'approche qui est  
24 utilisée par les régulateurs en Amérique du Nord,  
25 n'est-ce pas?

1 A. That they examine studies? Yes.

2 Q. [94] Qu'ils examinent des études aux fins de  
3 déterminer une tendance de l'industrie.

4 A. Yes.

5 Q. [95] Tendance de l'industrie à laquelle nous allons  
6 ajouter ou peut-être même soustraire un facteur  
7 qu'on appelle *stretch*, n'est-ce pas?

8 A. I'm sorry, could you ask that again?

9 Q. [96] Oui. L'objectif des régulateurs est de  
10 déterminer, donc la tendance de l'industrie au moyen  
11 d'études, puis d'ajouter un *stretch factor*, de  
12 déterminer, je vais dire ça comme ça, déterminer un  
13 *stretch factor*?

14 A. That's right.

15 Q. [97] Est-ce que vous confirmez que les données sur  
16 les opérations des distributeurs d'électricité aux  
17 États-Unis constituent une source de données  
18 adéquate pour évaluer la tendance de l'industrie aux  
19 fins de fixer le Facteur X de HQD?

20 A. Yes, it's the best source because there are very few  
21 other sources of data of quality, principally  
22 because the multi-factor productivity trend is a  
23 matter of capital cost. And to measure capital cost  
24 accurately, experts generally think that you have to  
25 have a very long sample of data. That's available in

1 the United States going all the way back to the  
2 sixties ('60s) and even earlier. It's not available  
3 for any Canadian province before about the year two  
4 thousand (2000) and, even at that, just for one or  
5 two jurisdictions.

6 Q. **[98]** Oui vous parlez de l'Ontario, je veux pas  
7 revenir là-dessus, vous aviez des réserves également  
8 sur l'Ontario, je crois, c'est ce que vous avez  
9 mentionné ce matin. Oui? C'est ça?

10 (13 h 18)

11 A. Yes Ontario. I just wanted to add that customarily  
12 in the jurisdiction where an X factor is determined,  
13 they also look at studies that have been customized  
14 specifically for the proceeding, that hasn't been  
15 done here. That's unusual. Not necessarily a bad  
16 idea because there are now so many studies from  
17 other jurisdictions that you can look at the other  
18 studies. But at any rate, of course, I would  
19 advocate normally having custom studies as well as  
20 looking at decisions of other regulators and in fact  
21 where such studies are submitted there's very little  
22 attention paid to the studies from other  
23 jurisdictions.

24 Q. **[99]** Je me souviens plus de la page dans votre  
25 présentation de ce matin, mais je comprends que

1 votre recommandation est de fixer le Facteur X pour  
2 HQD à zéro virgule trois pourcent (0,3 %) et  
3 le *stretch factor* à zéro virgule deux pourcent  
4 (0,2 %). C'est ce qu'on voit à l'écran pour le  
5 *stretch factor*. Donc, vous confirmez ces chiffres-  
6 là, je pense?

7 A. Yes.

8 Q. **[100]** Alors, dans votre précédente réponse, vous  
9 avez mentionné qu'il y avait plusieurs études déjà  
10 réalisées dans l'industrie, alors je vous  
11 demanderais de prendre la page 6 de votre  
12 présentation, c'est intitulé: *Credentials of*  
13 *productivity witnesses*. Selon vous, Dr. Lowry, est-  
14 ce qu'on a ici un portrait assez juste des services  
15 qui nous sont proposés dans l'industrie par les  
16 principaux experts dans le domaine des études de  
17 TFP?

18 A. I'm sorry, I think you have to ask that question  
19 again.

20 Q. **[101]** Oui. Vous identifiez dans votre tableau des  
21 noms d'experts, alors on a Lowry, Makholm, Meitzen,  
22 Fenrick, Carpenter et Coyne de diverses firmes, là,  
23 on voit il y a la firme NERA, il y a la firme  
24 Christensen, PSC, and Brattle, and Concentric. Est-  
25 ce que nous avons devant nous, dans ce tableau, une

1           juste représentation des services d'experts dans le  
2           domaines des études de productivité en Amérique du  
3           Nord?

4           A. I believe so. I'm not sure who has been left off of  
5           the list and, I think, these are the studies with  
6           testimony that we're aware of from these parties.

7           Q. **[102]** Selon vous, Dr. Lowry, est-ce que mis à part  
8           vous-même et la firme PEG, est-ce que ces autres  
9           experts et leurs firmes sont qualifiés pour procéder  
10          à des études de productivité?

11          A. I cannot speak for all of the people on this list in  
12          terms of their qualifications, but I know that there  
13          is something you learn between study number 3 and  
14          study number 30 for sure, and that it seems like the  
15          embrace... first of all, as I have said, I have long  
16          regarded Mr. Makhholm's methodology as being very  
17          sloppy and error ridden. And I then witnessed a  
18          number of other, two other consultants embracing it  
19          in all of its sloppy glory and I really had, I must  
20          say that although I thought they would know how to  
21          do a productivity study, that they seemed not even  
22          to understand how to correctly do a one-hoss shay  
23          capital cost that was the impression provided.

24                        So, when I presented this slide, remember  
25          that I said that one of the biggest reasons I was

1 presenting it is just to recommend that they take  
2 seriously my critique, because I do have many many  
3 studies in this area and so, if anyone could look at  
4 the evidence and kind of draw from it what should be  
5 learned and point out what should be disregarded, I  
6 would be in a good position to do that.

7 Q. [103] Oui. Mais c'est juste que nous mentionnions au  
8 début, vous mentionniez, pardon, qu'il y a plusieurs  
9 études réalisées sur le marché et je vais vous poser  
10 la question, si je fais exclusion des études  
11 réalisées par vous-même, PEG, je comprends que vous  
12 n'êtes pas prêt à donner une valeur à aucune autre  
13 étude, à tout le moins, dans celles réalisées par  
14 les experts qui sont mentionnés à votre page 6.

15 (13 h 23)

16 A. Well, as I've said several times here and now I've  
17 long been very critical of the NERA methodology and  
18 then Makholm and Carpenter embraced that  
19 methodology. Now, as for Mr. Fenrick, he's a former  
20 employee of mine, he learned a fair bit while he was  
21 in our employ, although he has only a Master's level  
22 of training, where our witnesses have all  
23 traditionally held a PhD, economists. He also used  
24 the methodology of PEG, that PEG developed for the  
25 Ontario Energy Board, although I would note that I

1 was not involved in that project, I was not handling  
2 that account at that time.

3 I've said about the Fenrick study  
4 specifically that the Commission should not  
5 disregard it, but that we are concerned about the  
6 data in Ontario and we're working right now on  
7 behalf of the Ontario Energy Board to try to make  
8 sense, is there really negative point nine (-.9)  
9 productivity going on in Ontario and looking at the  
10 data, taking a fresh look at it.

11 As for Mr. Coyne, well, the one study that  
12 he did used a very different methodology from the  
13 NERA methodology. It was more like something that  
14 Pacific Economics Group would do.

15 We had a problem as I recollect in that case  
16 with his choice of a peer group. It was sort of a  
17 curious choice of a peer group that produced a  
18 negative number when the industry productivity, in  
19 our view, was not negative and he somehow found a  
20 peer group that it was negative. But I would note  
21 that Mr. Coyne, apart from the peer group selection,  
22 was not embracing this NERA methodology but using a  
23 different type of method.

24 Q. **[104]** D'accord, je pense que maître Allard vous a  
25 laissé un petit papier, là, si vous voulez compléter

1 votre réponse. C'est bon?

2 Me JOCELYN B. ALLARD :

3 C'est correct. Merci.

4 ME JEAN-OLIVIER TREMBLAY:

5 Q. **[105]** Prenons la page 8, si vous le voulez bien, de  
6 votre présentation, on page 8. You mention :

7 Brattle and Christensen studies which  
8 Concentric's sites are based on flawed  
9 methodology of Dr. Makholm of NERA and  
10 you added the words "sloppy and  
11 inaccurate" this morning.

12 A. I think the word was "error ridden".

13 Q. **[106]** On verra dans les notes sténographiques. Cette  
14 étude à laquelle vous référez, du docteur Makholm,  
15 est-ce que c'est bien celle qui a été soumise devant  
16 l'Alberta Utilities Commission, AUC, en vue de sa  
17 décision de deux mille douze (2012)?

18 A. Well, I've been following Dr. Makholm's research for  
19 a longer period than that, but it did include that  
20 study. It also includes a study that he did for  
21 Central Main Power, for example, about ten years  
22 prior, that was also subject to great deal of  
23 criticism. I wasn't even involved in the proceeding,  
24 but it was subject to a great deal of criticism by  
25 Main Commission staff at that time, and may I note

1 that Central Main Power did not subsequently hire  
2 Mr. Makholm when an update was required, they hired  
3 me.

4 Q. **[107]** Mais cette méthodologie-là a été la base,  
5 n'est-ce pas, de l'étude de NERA déposée devant  
6 l'AUC en vue de sa décision de deux mille douze  
7 (2012)?

8 A. Very similar and as is the latest study that he  
9 submitted and which, just to clarify, Dr. Makholm  
10 submitted a new study in just last November, in  
11 which he concluded that zero percent (0 %)   
12 productivity trend was appropriate, based on his  
13 power distribution research and Mr. Coyne did not  
14 mention that in his survey.

15 Q. **[108]** Oui, oui, je comprends, ma question porte sur  
16 la procédure de deux mille douze (2012) devant le  
17 AUC. Je comprends, Dr Lowry, que vous avez été  
18 appelé comme témoin expert devant l'AUC?

19 A. Yes, and in the prior... in that proceeding and in  
20 the subsequent Alberta proceeding.

21 (13 h 29)

22 Q. **[109]** Parlons, si vous le voulez bien, pour  
23 l'instant, de celle de deux mille douze (2012). Je  
24 comprends que les critiques que vous formulez de  
25 cette méthodologie du docteur Makholm, vous les avez

1 mentionnées spécifiquement devant les régisseurs de  
2 l'AUC, n'est-ce pas?

3 A. Not all of the criticisms that we ultimately levied  
4 against or lodged against Dr. Makholm was in the  
5 first proceeding. For example, the thing about the  
6 average service life, we didn't figure out until the  
7 second proceedings, so that was not considered by  
8 the AUC in the first proceeding and, as I've said,  
9 they never considered the merit of that evidence in  
10 the second proceeding either. So, it's essentially  
11 new evidence.

12 Q. **[110]** Mais restons à la décision de deux mille douze  
13 (2012) et je vous assure on va passer à celle de  
14 deux mille seize (2016) après. Vous avez lu, n'est-  
15 ce pas, la décision de l'AUC deux mille douze  
16 (2012).

17 A. Yes.

18 Q. **[111]** Alors, je vais vous lire le paragraphe 412 de  
19 la décision et je cite:

20 In the commission's view, NERA study  
21 was more objective and transparent  
22 compared to PEG's analysis. First, as  
23 the Commission observed, in section 632  
24 above, the charts of a sample period in  
25 PEG study was primarily based on Dr.

1 Lowry's personal judgment not on an  
2 objective criteria. Moreover, as set  
3 out in section 6.3.4, PEG's lack of  
4 transparency and data processing did  
5 not allow either the other parties nor  
6 the independent consultant NERA to  
7 fully test and verify its TFP  
8 recommendation. As such, while the  
9 Commission recognizes the value of a  
10 separate productivity study, focussing  
11 on gas Distributors, the drawbacks of  
12 PEG's TFP research do not allow the  
13 commission to rely on it.

14 Alors, ma question, elle est très précise, n'est-il  
15 pas exact que malgré les critiques que vous avez  
16 formulées devant elle en deux mille douze (2012), la  
17 Commission de l'Alberta, AUC, n'a pas retenu vos  
18 critiques contre la méthodologie du docteur Makholm?  
19 (13 h 34)

20 A. Well, there's a lot to address in that because, for  
21 one thing, I thought we were talking about my  
22 criticisms of Dr. Makholm's methodology and then you  
23 brought in a different matter which is their  
24 treatment of my evidence in that case. So, let's  
25 talk about those two things separately.

1                   So, there are, as I've said, many things  
2 wrong with Dr. Makholm methodology in my opinion.  
3 But the Commission didn't want to throw out Dr.  
4 Makholm's methodology, they wanted to use a number  
5 from the methodology of the company that they had  
6 hired to do a study. So, that required them to  
7 either say that such and such a criticism is not  
8 clearly valid or to say that even if it is valid,  
9 it's not that important to the result. They didn't  
10 want to throw out, completely throw out, the Makholm  
11 study.

12                   One of the things I said this morning is  
13 that the Makholm study has a volumetric index and  
14 that's a disadvantage in this proceeding, but it  
15 wasn't a disadvantage in that proceeding because the  
16 power distributors were going to be operating on a  
17 price caps; whereas my methodology was, I think,  
18 using a number of customers. So, you can understand  
19 why they wanted to keep Dr. Makholm's methodology on  
20 the table, even while acknowledging some of my  
21 arguments, they wanted to not throw out Dr.  
22 Makholm's evidence.

23                   Now, as for the matter of my testimony, as I  
24 said this morning, the Alberta Commission, as I have  
25 it of doing dramatic gestures that are knocked on

1 elsewhere in MRI regulation, in my experience.  
2 Amongst other testimony that they threw out was Dr.  
3 Meitzen's testimony in the next proceeding. That was  
4 not mentioned by Mr. Coyne. I was wondering whether  
5 he was going to get around to mentioning this  
6 particular incident, but Dr. Meitzen's... much of  
7 Dr. Meitzen's work was also thrown out by the AUC in  
8 the next proceeding.

9 Now, as for why they would have thrown out  
10 my gas numbers, there are two reasons. First of all,  
11 at that time, I was using a proprietary data set  
12 that I had gathered through my contacts at the  
13 American Gas Association and it required other  
14 parties to the proceeding to sign a confidentiality  
15 agreement. For some reason, that really rubbed the  
16 Commission the wrong way, the fact that the  
17 proprietary data set was being used and, in fact,  
18 one of the things that was so upsetting about it,  
19 was that this means that Dr. Lowry would have to be  
20 dragged in the next proceeding as well, because  
21 we're relying on his unique data set, whereas Dr.  
22 Makholm was using a publicly available data set. I  
23 mean he just put it on the web site and he said it's  
24 there for anybody to have. So, that was a plus in  
25 their view. They really put a lot of weight of that

1 and I've never known any other Commission to do  
2 that.

3 And secondly, apparently the Brattle Group  
4 had a problem completely reconciling their results  
5 and ours. They probably got within ten (10) basis  
6 points, but they made a big deal about the fact that  
7 they couldn't completely reconcile their results to  
8 ours. And those were the two grounds on which the  
9 Commission throughout that study, but at the end of  
10 the day, not only did we get paid in full for our  
11 research in the proceeding, but the AUC gave us an  
12 eighty thousand dollar (\$80,000.00) bonus for our  
13 work.

14 Q. **[112]** Oui. Bon. Mais on va laisser ça là pour deux  
15 mille douze (2012). Allons à la décision de deux  
16 mille seize (2016) maintenant. Et je comprends que  
17 dans la décision de l'AUC deux mille seize (2016),  
18 vous avez, cette fois, réitéré vos critiques des  
19 méthodologies utilisées par les autres experts,  
20 n'est-ce pas?

21 A. Yes. I brought up all the old reservations plus some  
22 new reservations and finally got around to, in the  
23 rebuttal testimony, to actually quantifying how  
24 important each of them was and that's why that Table  
25 2 from the reply evidence was so important and why I

1 presented it this morning. Because it actually put  
2 the numbers there to show why the numbers from  
3 doctor Makhholm's method as updated by Christensen  
4 and Brattle were so different from ours and I showed  
5 step by step what the reasons for that were.

6 Q. [113] Mais, Dr Lowry, vous avez reproché ce matin  
7 dans votre témoignage à monsieur Coyne de ne pas  
8 assez tenir compte des décisions des organismes de  
9 réglementation, comme la Régie, l'AUC ou autre. Mais  
10 n'est-il pas exact que ce qu'a décidé l'AUC n'est  
11 pas ce que vous dites. Ce qu'a décidé l'AUC c'est  
12 qu'il existe plusieurs méthodes, qu'elles ont toutes  
13 une valeur que nous n'obtenons pas une valeur  
14 unique, mais bien une plage de valeurs quand on fait  
15 l'examen de ces études-là. N'est-ce pas exact?

16 A. Well, I believe that in this process of *jugement*  
17 that you have to give some weight to the Commission  
18 decisions and some weight to the studies themselves,  
19 and I felt that I put more weight on the Commission  
20 decisions than Mr. Coyne has. I mean his, basically,  
21 recommendation was based on an average of studies,  
22 most of which were prepared by utility witnesses  
23 which was really relying on the studies and, in my  
24 opinion, effectively relitigating the Alberta  
25 decision as opposed to paying attention at what

1 Commission said in the matter.

2 Q. **[114]** Je repose ma question. N'est-il pas exact que  
3 la décision de deux mille seize (2016) de l'AUC ne  
4 dit pas, ne reprend pas vos prétentions. Elle ne  
5 rejette aucune méthode, mais les accepte toutes en  
6 leur donnant des valeurs, une valeur.

7 A. It did, but I would, again, reiterate some of the  
8 reasons why the Régie was reluctant to give up on  
9 the Makholm study because they were having price  
10 caps for the power distributors and so they would be  
11 hard pressed to give up a study that was based on  
12 volume. I would like to...

13 Q. **[115]** Mais vous spéculez Dr Lowry.

14 A. I would like to clarify as well that one of the  
15 reason that one of the reasons... Why was the  
16 Alberta commission go out of their way to say we  
17 want to rely on several studies, why? One of the  
18 reasons for that is that I had consistently  
19 advocated in Alberta that the Commission choose one  
20 study over all others as the most... the best of the  
21 bunch and that because that's basically an  
22 arbitration mechanism. In an arbitration as opposed  
23 to a litigation, if you only accept the proposal  
24 from the proposals of the two parties, you  
25 incentivize the parties to come together to come to

1 reality with their numbers and maybe just nudge them  
2 a little bit to the left or the right for their  
3 client. That was what I was encouraging them to do  
4 to discourage studies that tried to exploit a  
5 temptation that commissions might have to take an  
6 average of the results.

7 (13 h 39)

8 Q. **[116]** Mais ça...

9 A. Apart of what they were responding to even if you  
10 read that very section of that testimony...

11 Q. **[117]** I did.

12 A. Was my suggestion that they rely on one study on  
13 that was partly what they were talking about when  
14 they used that language.

15 Q. **[118]** Mais Dr Lowry, vous spéculez, n'est-ce pas,  
16 quand vous dites ça? Parce que la seule façon de  
17 connaître le raisonnement de l'AUC, c'est de lire la  
18 décision. Alors ce que vous nous dites là, c'est  
19 votre appréciation de ce qu'a pu être par ailleurs  
20 le raisonnement, mais ce n'est pas écrit dans la  
21 décision ou si oui, pointez-moi les paragraphes.

22 A. Well, you know, we're here to try to inform the  
23 Régie about the best X factor and of all the people  
24 in this room, I was the only one that was there in  
25 that proceeding. So, I'm trying to be helpful to the

1 Régie from a regulator's standpoint understanding  
2 some of what was going through their head in my  
3 opinion and it's not even prejudicial I'm saying  
4 that they didn't necessarily bad decision,  
5 considering that they had price caps to deal with.  
6 Please also remember one more thing, and that is  
7 that they did not consider that table 2 in their  
8 decision at all. It wasn't rejected, it was simply  
9 not considered part of the evidentiary base for  
10 their decision.

11 Q. [119] Mais Dr Lowry, vous voulez aider la Régie?  
12 Mais vous dites des choses qui ne se retrouvent pas  
13 dans la décision. Vous spéculez n'est-ce pas sur  
14 votre interprétation ou vos opinions, mais vous vous  
15 éloignez ce faisant du texte de la décision et je  
16 vais arrêter là. Mais vous pouvez me donner les  
17 numéros de paragraphes si je n'ai pas raison et si  
18 la commission de l'Alberta a suivi vos  
19 recommandations. Je ne les ai pas vues dans la  
20 décision, les deux décisions que j'ai lues en  
21 entier. Alors, je comprends donc, tout ça pour dire,  
22 vous êtes incapable d'appuyer vos dires de la  
23 dernière minute par des paragraphes de la décision  
24 de deux mille seize (2016) de l'AUC, n'est-ce pas?

25 A. I think that the explanation I provided was

1 persuasive and sensible and I'll leave it up to the  
2 Régie to decide whether it was wrongheaded of me to  
3 speculate on their motives.

4 Q. **[120]** Alors, je vais vous demander Monsieur Lowry,  
5 en engagement, de nous fournir le document venant de  
6 l'AUC à l'effet que vous avez eu un bonus de quatre-  
7 vingt mille dollars (80 000 \$) pour votre  
8 participation à leur dossier, s'il vous plaît.

9 LA GREFFIÈRE :

10 Ce sera l'engagement numéro 1 de l'AQCIE.

11

12 E-1 (AQCIE) : Fournir la preuve du bonus de 80 000 \$

13 (Demandé par HQD)

14

15 Q. **[121]** Alors, continuons. Je vais vous demander Dr  
16 Lowry de prendre la page 22 de votre présentation.

17 A. I might... May I say one more thing about this issue  
18 and that is that the AUC in its decision made no  
19 mention of the empirical work for my reply evidence.  
20 No mention of it whatsoever. The only way we know  
21 why they disregarded it was when it came time for  
22 the payment for services rendered and they  
23 disallowed in their... the explained that they  
24 disallowed... One of the reasons they had a cost  
25 disallowance of twenty percent (20 %) or something

1 was that they had not been able or willing to count  
2 the results of the reply evidence empirical work,  
3 because no working papers were provided, but the AUC  
4 also went on to state that nonetheless PEG's work in  
5 this proceeding has been very valuable and  
6 contributed to the final decision.

7 Q. [122] Mais ce n'est pas... Je ne suggère pas, et je  
8 le dit, que votre travail n'avait pas de valeur, je  
9 dis que la commission de l'Alberta a reconnu de la  
10 valeur à plusieurs études. Quittons ce sujet-là.

11 Donc, prenez la planche 22 de votre  
12 présentation de ce matin, s'il vous plaît. Et c'est  
13 par ailleurs, Mesdames, Monsieur les Régisseurs, la  
14 page 6 de la présentation de Concentric, c'est  
15 essentiellement le même tableau. Alors, Dr Lowry  
16 prenons la première colonne Statistique Canada, MFP.  
17 (13 h 44)

18 Êtes-vous d'accord avec moi pour dire que  
19 bien que les valeurs de Statistique Canada ne  
20 sauraient remplacer une étude de type TFP, ces  
21 valeurs de Statistiques Canada sont quand même  
22 utiles pour la Régie dans sa réflexion pour  
23 appliquer son jugement pour un Facteur X pour HQD.

24 A. I know I said earlier today I thought that this  
25 should be wholly disregarded, and I also noted how

1 is it possible that this study, which was not  
2 submitted in a regulatory proceeding, found its way  
3 into this table, but not my study for Lawrence  
4 Berkeley Lab.

5 Q. **[123]** Dr Lowry, dans votre rapport à la page 46,  
6 vous citez vous-même l'AUC qui mentionne, et je  
7 cite,

8 Overall, the Commission considers that  
9 while Statistics Canada's MFP's indexes  
10 and the CLLS report can be a useful  
11 reference for gauging the general  
12 productivity trends of the utility  
13 sector, these analysis cannot be a  
14 substitute for a TFP study.

15 So, we found here the words "useful reference."  
16 Alors, n'êtes-vous pas d'accord avec l'AUC ou  
17 trouvez-vous que l'AUC avait fait erreur dans son  
18 appréciation?

19 A. The AUC ultimately chose a number for X that was  
20 based on Dr. Makhholm's testimony.

21 Q. **[124]** C'est votre réponse à la question?

22 A. Yes.

23 Q. **[125]** Donc, si je comprends bien votre témoignage...

24 M. JOCELYN B. ALLARD :

25 R. Un petit instant, Maître Tremblay.

1 Q. **[126]** Oui, excusez-moi. Je m'excuse. Ça va, on peut  
2 continuer?

3 ME JOCELYN B. ALLARD :

4 Oui, merci.

5 Q. **[127]** On continue. Alors, on a parlé donc de  
6 Statistique Canada. On a parlé également, je vais le  
7 barrer, on a parlé également de NERA. On a parlé  
8 également de Brattle puisque selon vous, n'est-ce  
9 pas, les problèmes méthodologiques de NERA, bien,  
10 ils sont inhérents à l'étude de Brattle selon votre  
11 prétention, n'est-ce pas? Je parle de l'étude de la  
12 troisième colonne.

13 A. Well, I'm trying to understand what your question is  
14 here.

15 Q. **[128]** Bien, les critiques que vous adressiez à la  
16 méthode utilisée par le Dr. Makholm pour son étude  
17 de deux mille douze (2012), de ma compréhension,  
18 s'appliquent à l'étude de Brattle, n'est-ce pas?

19 A. It applies to, yes, the Brattle study, and several  
20 other studies on this list.

21 Q. **[129]** O.K. Comme par exemple, l'étude de deux mille  
22 seize (2016) de Christensen? Il y a PEG et ensuite  
23 il y a l'étude de Christensen dans le tableau.

24 A. And there's also Makholm's own study. He's put on  
25 here twice, even though neither one of these

1 Makholm's studies was discussed in the company's  
2 January fifth (5th) evidence, I believe, like the  
3 Makholm EGD study, it was completely ignored in that  
4 evidence, and now it's making an appearance.

5 Q. [130] Oui. Est-ce que vous suggérez que monsieur  
6 Coyne n'a pas fait cette distinction dans son  
7 témoignage?

8 A. Well, I was, you know, this kind of gets into what a  
9 call the Concentric dos and don'ts. He made a strong  
10 case that you really should pay attention to the  
11 latest results, and then he actually ignored the  
12 latest results. There were two studies that were  
13 very pertinent that he didn't cover in his  
14 testimony.

15 Q. [131] Ça, c'est une chose. S'il y a d'autres études,  
16 on va y venir. Mais n'est-il pas exact, peut-être  
17 vous n'avez pas écouté l'audience à ce moment-là,  
18 mais que quand monsieur Coyne a témoigné, il a été  
19 très très clair sur le fait que certaines études  
20 n'avaient pas fait l'objet de décision par les  
21 organismes de réglementation. Je comprends que vous  
22 n'êtes pas en mesure de vous prononcer là-dessus,  
23 n'est-ce pas?

24 (13 h 49)

25 A. I think that a good study that hasn't had a final

1 ruling is pertinent. The Fenrick study would fall  
2 into that category, this new Makholm study would  
3 fall into that category, as would my reply evidence  
4 in Alberta. Those are all three studies that were  
5 never fully vetted by other parties, and I think  
6 they're all potentially relevant.

7           However, of them, the only one that I would  
8 give much credence to would be the Ontario study.  
9 And even there, as I've explained, we have some  
10 concerns about it, but it's the legitimate... that  
11 plus my reply evidence study are worth considering  
12 this one of Dr. Makholm's as I wouldn't put any  
13 weight on.

14 Q. **[132]** L'étude de l'Ontario, c'est l'avant-dernière  
15 colonne PSE?

16 A. Yes, yes.

17 Q. **[133]** Bon. On en a au moins une. Alors, nous avons  
18 PSE et dans le tableau, la seule autre à laquelle  
19 vous donnez de la valeur, n'est-ce pas, c'est votre  
20 propre étude réalisée pour le client CCA, n'est-ce  
21 pas?

22 A. That's right, although I've wondered why there  
23 aren't more of my studies on here because that study  
24 was tailor-made to Alberta conditions. It did not  
25 include SALC costs, or general costs that are

1           pertinent in this proceeding, and it wasn't as up to  
2           date as it could be.

3           Q. [134] Parlons de la méthode de calcul des coûts du  
4           capital. Et je ne veux pas entrer avec vous dans un  
5           débat quant à savoir quelle est la meilleure  
6           méthode, ce n'est pas l'objet de mes questions, mais  
7           je ne veux pas vous restreindre dans vos réponses.

8                         Est-ce que vous reconnaissez, Dr Lowry, que  
9           parmi les autres experts et allant au-delà de la  
10          valeur que vous pouvez donner à leurs travaux ou à  
11          leur formation ou à leur expérience, la méthode de  
12          *geometric decay* est utilisée et la méthode *one-hoss*  
13          *shay* est également utilisée. Est-ce que vous  
14          reconnaissez que ces méthodes sont utilisées?

15          A. Yes, they are used as well the, sometimes a cost of  
16          service approach is sometimes used that explicitly  
17          assumes straight line depreciation, and historic  
18          valuation of plant. Occasionally, I've done studies  
19          like that.

20          Q. [135] Dans la même veine, vous reconnaissez aussi,  
21          n'est-ce pas, que la mesure des extrants, *output*  
22          *measures*, retenue par l'un ou l'autre des experts  
23          peut varier. Alors, il y a le nombre de clients, il  
24          y a les volumes ou les ventes, il y a également, il  
25          peut y avoir un mix, là, entre les ventes, les

1 clients ou *peak demand*, la puissance à la pointe ou  
2 même autres. Est-ce que vous reconnaissez ça?

3 A. Yes, and the Régie may wish to know that the Ontario  
4 study does have the mix of the two. But it was  
5 applying to price caps, but it did have a mix of  
6 three different output variables.

7 Q. [136] Et vous reconnaissez, reconnaissez-vous, que  
8 lorsque des débats ont lieu devant les organismes de  
9 réglementation sur ces sujets, on parle du *output*  
10 *measure* ou de la méthode pour calculer les coûts du  
11 capital, par exemple, cela donne lieu à des débats  
12 qui peuvent être assez détaillés ou approfondis  
13 comme, par exemple, là, ce qu'on a vu en Alberta.  
14 Est-ce que vous reconnaissez ça?

15 A. Okay, as I said this morning, there are a lot of  
16 issues about the differences between the *one-hoss*  
17 *shay approach*, which has rarely been used, but is  
18 occasionally used, and the geometric decay approach  
19 which is very widely used, for example, by the  
20 Canadian government in much of its research. And  
21 we're not here today to go through that whole list.  
22 That's something that the Régie can consider, at its  
23 leisure, once they're under a lower cost regulatory  
24 system where there's a little more time to think  
25 about it.

1 Q. [137] We agree on that.

2 (13 h 54)

3 A. Alright. That's why I only brought up the one big  
4 problem that is very easy to understand, and it's  
5 also obviously a problem because the assumption that  
6 was made by all these witnesses about the average  
7 service life is way off the mark for what Hydro-  
8 Québec has, and other utilities have its way  
9 divorced from reality. So, that's why I wanted to  
10 limit the focus here, just to that one issue because  
11 I feel that this is the biggest reason for these  
12 negative productivity results that you only get,  
13 somehow, with the one-hoss shay method.

14 Q. [138] Vous avez mentionné ce matin d'ailleurs, j'ai  
15 noté ça, là, qu'il y avait un big debate between  
16 one-hoss shay, and geometric decay methods, n'est-ce  
17 pas?

18 A. There has been that debate in a few proceedings. You  
19 keep going back to the Alberta proceeding because, I  
20 suspect because you like the results of the  
21 Commission there. Another reason to... there was an  
22 even bigger debate about one-hoss shay versus  
23 geometric decay in the recently completed Ontario  
24 Power Generation MRI proceeding and the particular  
25 approach to one-hoss shay that was undertaken by

1 London Economics was rejected by the Ontario Energy  
2 Board in their proceeding.

3 Q. [139] Oui, vous avez mentionné ça dans votre  
4 rapport. Prenez, s'il vous plaît, la page 29 de  
5 votre présentation qui porte sur les Facteurs Z.  
6 Alors, vous mentionnez dans la rubrique *no major*  
7 *capital projects*. Donc, c'est votre recommandation  
8 de ne pas reconnaître, à titre de facteur exogène,  
9 des projets majeurs, n'est-ce pas?

10 A. Yes, that is my recommendation although, of course,  
11 capital projects that result from things like *pannes*  
12 *majeures* would certainly qualify, highway  
13 relocations. There wouldn't be a number of capital  
14 projects that would qualify under normal Z Factor  
15 rules, but apart from that, I'm very worried that  
16 the Régie might not appreciate the Pandora's box  
17 they could be open up by allowing this type of  
18 supplemental source for capital revenue.

19 Q. [140] Êtes-vous en mesure, Dr Lowry, de me nommer  
20 une province ou une entreprise d'électricité qui est  
21 assujettie à un MRI qui ne comporte aucune  
22 possibilité de faire reconnaître des projets majeurs  
23 comme Facteur Z, qui n'a aucun facteur de capital,  
24 comme un K Factor, par exemple, ou les deux, ou une  
25 combinaison des deux et qui ne... voilà, c'est ça.

1                   Donc, je récapitule. Aucune possibilité de  
2 faire reconnaître un projet majeur comme Facteur Y  
3 ou Z, et aucun Facteur K, comme pour le capital,  
4 faire reconnaître un traitement spécial pour le  
5 capital. Pouvez-vous m'en nommer?

6    A. I will concede that many recent plans, MRIs in  
7 Canada, have had these provisions at least available  
8 to the utilities, not always exercised by them. In  
9 Canada, for example, they have what I encourage the  
10 Régie to think of this morning as a model, if they  
11 must go forward with this, it's to use some variant  
12 on the theme of the incremental capital module which  
13 is available for the Ontario distributors.

14                   And in Ontario, most distributors have not  
15 availed themselves of the incremental capital  
16 module, that's to be noted. Now, as for why this is  
17 so common in Canada, I don't know. I know that the  
18 Alberta utilities claim they have special needs. It  
19 was semi-persuasive that it had something to do with  
20 an echo effect from a past boom in growth in the  
21 economy and as I say, in Ontario, they'll allow for  
22 the possibility. But, actually, most companies  
23 haven't used it, and they have to provide a lot of  
24 evidence in order to get it.

25                   (13 h 59)

1                   Now, what I'd like to move next though to is  
2                   the United States where many past proposals by  
3                   utilities did not include a provision for  
4                   supplemental capital revenue and I'm trying to think  
5                   of recent proposals that I know of that didn't have  
6                   this provision. And the one that comes to mind, I'm  
7                   ninety percent sure, is Unitil.

8                   When I testified for Unitil, just a few  
9                   years ago in Massachusetts, we said, well, we either  
10                  would like to have a big capital tracker like  
11                  National Grid has, or we'll go along with a price  
12                  cap that doesn't have a capital tracker.

13                  And so, that was a recent example from the  
14                  United States where they did not ask for any  
15                  supplemental revenue, but I think there are a number  
16                  of other examples in the United States where they  
17                  were either proposed utilities, and rejected by the  
18                  commissions, or were actual plans. I mean, if you'd  
19                  like, I could make that an undertaking, but it's up  
20                  to you.

21                  (14 h)

22                  Q. **[141]** Moi je ne vous le demande pas. Ma question  
23                  portait sur les juridictions canadiennes, vous avez  
24                  répondu, je vous remercie.

25                  A. I don't recall that you limited the question

1 originally to Canadian jurisdictions.

2 Q. **[142]** Ah, je suis désolé, alors c'était l'intention  
3 que j'avais. Alors, je le dis maintenant. Vous  
4 recommandez l'utilisation d'une étude que vous avez  
5 réalisée pour le Lawrence Berkeley Lab, n'est-ce  
6 pas?

7 A. Yes.

8 Q. **[143]** Est-il exact d'affirmer que l'aspect - étude  
9 de productivité, que vous mentionnez ici est en  
10 réalité une annexe du rapport que vous avez soumis  
11 au Lawrence Berkeley Laboratory qui compte, par  
12 ailleurs, cent trente et une (131) pages  
13 principales.

14 A. The report's results are very central to the study  
15 because what they wanted to do... let me just give a  
16 little background for the Commission. There's been  
17 sort of an upswing in popularity of MRIs in the  
18 United States, but a lot of people, when they talk  
19 about the MRIs, they're mostly talking about just  
20 the use of adding some metrics to the regulatory  
21 system whereas in Canada, they mostly do the multi-  
22 rate plans.

23 And so, the Berkeley Lab was interested in  
24 encouraging more interest in the multi-rate plan  
25 approach, so they commissioned a second white paper,

1 my second white paper in two years, to just look at  
2 the multi-rate plans. But one of the things they  
3 wanted in that study was what is the evidence that  
4 these plans have any impact, what is the impact on  
5 the performance of the utilities, for example.

6 So, the heart of that paper is a series of  
7 interesting case studies that include Ontario, mid-  
8 American energy, California, New York State, several  
9 states like that. And also, we also took a look at  
10 just utilities that had stayed out of a rate case  
11 for more than fifteen (15) years because that's an  
12 interesting story. There are a few utilities like  
13 that that are still never coming for a rate case  
14 since the nineteen nineties (1990s).

15 So the idea was to measure their power  
16 distribution productivity, and see if it was  
17 different from that of the full national sample  
18 during the years that they were under a multi-rate  
19 plan. Now, the Appendix, the write up of the study  
20 was confined to the Appendix because it was already,  
21 as you just said, a very long study, and we were  
22 trying to move as much material out of the essential  
23 part as possibly could be done. So, that's why most  
24 of the description of the research methodology was  
25 in the Appendix.

1 Q. [144] Quel était le titre de ce rapport, quel est le  
2 titre de ce rapport, Dr Lowry?

3 A. I don't have that handy, but it's something like  
4 "State regulation of electric utilities using multi-  
5 rate plans," something like that.

6 Q. [145] Donc, vous êtes d'accord avec moi pour dire  
7 que cela a une portée beaucoup plus large qu'une  
8 étude de productivité de l'industrie, là.

9 LA PRÉSIDENTE :

10 Maître Tremblay, je suis désolée, c'est parce qu'on  
11 me fait...

12 Me JEAN-OLIVIER TREMBLAY :

13 Oui?

14 LA PRÉSIDENTE :

15 ... qu'il y a une objection qui s'en vient ou,  
16 enfin, il y a quelque chose... Ah, c'est maître  
17 Sarault qui s'en vient.

18 Me GUY SARAULT :

19 C'est de l'aide.

20 LA PRÉSIDENTE :

21 Ah bon.

22 Me GUY SARAULT :

23 Vous la retrouvez, la fameuse étude en question, à  
24 l'acétate numéro 33...

25

1 Me JEAN-OLIVIER TREMBLAY :

2 Ah.

3 Me GUY SARAULT :

4 ... de la présentation PowerPoint. Excusez-moi,  
5 Monsieur Morin, je suis désolé. Alors, on retrouve  
6 la mention de cette étude du Dr Lowry à l'acétate  
7 numéro 33 de sa présentation PowerPoint, c'est la  
8 deuxième publication qui semble être dans la liste.

9 Q. **[146]** Exact Dr. Lowry? Is this the one you're  
10 talking about?

11 A. Yes, that's correct, it is cited in the references  
12 of my presentation.

13 Me JEAN-OLIVIER TREMBLAY :

14 Très bien, merci Maître Sarault.

15 Me GUY SARAULT :

16 Je peux être gentil des fois.

17 Me JEAN-OLIVIER TREMBLAY :

18 Toujours. Les débats sont très aimables ici.

19 (14 h 05)

20 Q. **[147]** Cette étude, donc, que vous avez réalisée, Dr  
21 Lowry, n'est-elle pas je parle de l'aspect étude TFP  
22 qui est en annexe B, n'est-elle pas, ne découle-t-  
23 elle pas de la même méthodologie que celle que vous  
24 avez utilisée pour fournir votre étude devant l'AUC?

25 A. Not exactly because it adds back in the SALC, and

1 general costs which are important in the  
2 consideration of a rate plan for Hydro-Québec.  
3 That's the main difference. I'm not sure if there  
4 aren't a few other differences, but the big one  
5 would be to add back in the SALC, and general costs.

6

7 Q. [148] O.K. Cette étude pour le Laboratory, n'est-il  
8 pas exact qu'elle n'a pas été révisée ou approuvée  
9 par quelque régulateur que ce soit en Amérique du  
10 nord?

11 A. Well, naturally, it was not filed in a regulatory  
12 proceeding. But again I would like to just emphasize  
13 that, that definitely was a very core part of that  
14 study. In fact, if you look at that study, there are  
15 a few... there's a chunk at the beginning which is  
16 kind of a *reprise* of what multi-rate plans are all  
17 about.

18 And I had to fight like crazy to get that put in  
19 there because the Berkeley Lab felt that that was  
20 duplicative of the prior PBR, or MRI paper that we  
21 had done, and I thought, well, some people have  
22 already read that paper, so we want to squeeze in, I  
23 promised to streamline the discussion, but so, yeah,  
24 it has a little bit more of a soup to nuts character  
25 because I insisted that people have some idea of

1 what a multi-rate plan was all about. But the heart  
2 of the study were those case studies, that's what I  
3 was hired to do, and the heart of the case studies  
4 is the productivity work.

5 And the reason that it was convenient to  
6 look at power distribution is that a lot of the  
7 utilities in the US are vertically integrated, and  
8 so that's one thing that they all have in common,  
9 and also that, you know, if you are a vertically  
10 integrated utility, you're not going to have a weak  
11 incentive to contain your distribution costs because  
12 they have very little effect on your revenue  
13 requirement overall. So, you're going to have  
14 particularly strong incentives to contain your  
15 distribution costs. If you're in a rate case, stay  
16 out, or if you are subject to some sort of an MRI  
17 so...

18 Q. **[149]** Thank you. I have some questions about the  
19 Kahn method. À la page 24 de votre rapport du cinq  
20 (5) janvier, vous l'avez?

21 A. Yes.

22 Q. **[150]** Vous mentionnez que le Kahn X Factor, ou le  
23 Kahn method a été développé dans le cadre de travaux  
24 supervisés par la FERC concernant la réglementation  
25 d'entreprises de pipelines aux États-Unis. Alors,

1 c'est bien ça?

2 A. Oil pipelines.

3 Q. **[151]** Merci, il faut juste le dire verbalement pour  
4 les notes sténographiques. Est-ce que vous  
5 confirmez, Dr Lowry, que cette méthode Kahn est très  
6 peu utilisée par les régulateurs nord-américains  
7 pour déterminer des Facteurs X pour des entreprises  
8 d'électricité ou même de gaz?

9 A. That's correct, it has not been used for gas, and  
10 electric regulation, it's been used routinely for  
11 the oil pipelines, and you know, I mentioned earlier  
12 that having done this for many years, I learn a  
13 little something from every project and then I  
14 changed my methodologies.

15 And this idea of using the Kahn method was  
16 actually introduced in the recent British Columbia  
17 proceeding by a company witness and at the time, we  
18 thought, hey, what the heck is this? Let's figure  
19 out how it works. And then, we realized, well, you  
20 know, it's a useful crosscheck on other evidence, it  
21 shouldn't be the sole basis for evidence, but it  
22 often can be informative in deciding an X Factor.

23 (14 h 10)

24 Q. **[152]** Est-ce que cette méthode Kahn est utilisée par  
25 la FERC pour une seule entreprise de pipelines?

1 A. No, it applies to all pipelines that don't... it  
2 potentially applies to all pipelines.

3 Q. **[153]** Oui, O.K., si je comprends bien, il faut  
4 utiliser un groupe d'entreprises de pipelines et je  
5 vous soumetts que dans les dossiers de la FERC, on  
6 parle d'environ cent quarante (140) entreprises de  
7 pipelines, n'est-ce pas?

8 A. I don't know about the exact number, and I don't  
9 know how many of those are included in the Kahn  
10 method study, that's done every time they update  
11 their MRI, but yeah, so I mean, there's a lot of  
12 them.

13 Q. **[154]** Et êtes-vous d'accord avec moi pour dire que  
14 parmi ce groupe d'entreprises, la méthode Kahn va  
15 retirer du groupe les vingt-cinq pour cent (25 %)   
16 supérieurs et les vingt-cinq pour cent (25 %)   
17 inférieurs. Est-ce que c'est à votre connaissance?

18 A. Can you say that last part again?

19 Q. **[155]** Oui. Est-ce que c'est à votre connaissance que  
20 dans son utilisation de la méthode Kahn...

21 A. Oh...

22 Q. **[156]** ... la FERC prend l'échantillon des compagnies  
23 - cent quarante (140) ou autre chiffre - et retire  
24 les vingt-cinq pour cent (25 %) les plus hauts et  
25 les vingt-cinq pour cent (25 %) les plus bas.

1 A. Yes, I believe that that was part of Dr. Kahn's  
2 method. I don't know that that's really necessary,  
3 but they tended to adhere to his method, so yes, I  
4 believe that I do recollect that.

5 Q. [157] Mais finalement, ce que vous proposez ici  
6 d'utiliser la méthode Kahn d'une façon ou d'une  
7 autre, êtes-vous d'accord avec moi pour dire que  
8 c'est peu commun et même unorthodoxe.

9 A. Since the Federal Energy Regulatory Commission has  
10 used this methodology several times to choose X  
11 Factors for oil pipelines, I hardly think it would  
12 be fair to call this an unorthodox method. The  
13 reason that I think that it's a valuable point to be  
14 considered is that it does a nice job of capturing  
15 the actual cost of capital the way it's actually  
16 measured in a rate case, a *dossier tarifaire*, and  
17 after all, the revenue cap index is supposed to get  
18 you from one rate case to the next one. And so,  
19 sometimes, it's useful to make sure that you look at  
20 one methodology that reflects the way capital cost  
21 is actually measured. I mean, if you look, put on a  
22 spectrum the various approaches to measuring capital  
23 cost, you've got actually cost of service  
24 regulation, and then you have this sort of cost of  
25 service simulation that I've developed

1 mathematically. That's where I get this idea about  
2 the implicit price index being a weighted average of  
3 many past... of construction cost inflation over  
4 many past years, that's where that comes from, it's  
5 the development of a cost of service approach.

6 So, then there's the geometric decay which  
7 is not so different from the cost of service  
8 approach, and then there's the one-hoss shay that's  
9 very different from it. It's just nothing at all  
10 like the way utilities are regulated which doesn't,  
11 in and of itself, make it absolutely inadmissible,  
12 but it is the least similar to cost of service  
13 regulation.

14 So, if we're entertaining studies using a  
15 one-hoss shay method, what's worse is that this is a  
16 badly done one-hoss shay method. But if we're  
17 entertaining studies like that, throwing into the  
18 mix a Kahn method exercise for Hydro-Québec, I think  
19 makes a lot of sense. And actually, the numbers  
20 aren't that... the numbers that come out of it are  
21 not that crazy at all.

22 (14 h 15)

23 Q. **[158]** Je vous remercie. J'avais bien compris votre  
24 opposition à l'utilisation de la méthode one-hoss  
25 shay, ne vous en faites pas sur ce point. Vous avez

1 mentionné dans votre présentation tout à l'heure à  
2 propos de l'étude du docteur Fenrick de l'entreprise  
3 PSE qui était un ancien employé de PEG si je ne  
4 m'abuse. Vous avez mentionné qu'il avait fourni son  
5 étude gratuitement. Est-ce que c'est bien ça?

6 A. Something might have been lost in the translation  
7 there. It was gratuitous in the sense that it was  
8 not expected, or wanted by the OEB. I don't even  
9 know if, when he was engaged by Hydro One, that it  
10 was even in the contract for him to do. So it's in  
11 that sense that it was a gratuitous thing, and it's  
12 been a problem in my contract with the Ontario  
13 Energy Board about dealing with it, it's that what  
14 are we going to do about this study, it wasn't even  
15 an issue, the company had already agreed to the zero  
16 that they have for the province, so what's this all  
17 about?

18 And, in fact, we haven't even decided fully  
19 how to respond to that specific study, but it does  
20 raise the can of worms about all the problems with  
21 Ontario data.

22 Q. **[159]** Oui. Donc, vous ne suggérez pas que le Dr  
23 Fenrick n'avait pas été payé pour son étude.

24 A. No, it's just gratuitous in the sense that it was  
25 sort of a bonus piece of work that he did.

1 Q. [160] Très bien.

2 A. He may well have been paid, in fact, he probably  
3 was.

4 Q. [161] Un instant. Je vous demande un instant, s'il  
5 vous plaît. Alors, je vous remercie pour le temps  
6 alloué et je n'ai pas d'autres questions, sous  
7 réserve de l'obtention de l'engagement écrit, mais  
8 je ne crois pas que ça va susciter des questions  
9 supplémentaires verbales.

10 LA PRÉSIDENTE :

11 Je vous remercie. Alors Maître Gariépy?

12 Me ANNIE GARIÉPY :

13 Merci Madame la Présidente.

14 (14 h 18)

15 INTERROGÉS PAR Me ANNIE GARIÉPY :

16 Q. [162] J'aurai quelques questions pour vous. Tout  
17 d'abord, je voulais voir avec vous si vous étiez  
18 présent hier lorsque j'ai questionné Mr. Coyne à  
19 propos de sa position sur la détermination des  
20 facteurs Y et des « stretch factor » en lien avec  
21 l'inclusion des coûts liés... de certains coûts liés  
22 aux actifs, notamment l'amortissement et le  
23 rendement sur la base de tarification dans la  
24 formule d'indexation.

25 R. Yes, I was present for that.

1 Q. **[163]** D'accord. J'aimerais voir avec vous quelle est  
2 votre position dans la réflexion que la Régie doit  
3 avoir si la croissance annuelle moyenne pour  
4 l'ensemble des charges dans la formule d'indexation  
5 ou une part significativement importante des charges  
6 qui sont dans la formule d'indexation si le taux de  
7 croissance annuel moyen diffère significativement du  
8 taux calculé de la formule d'indexation. Est-ce que,  
9 ma première question, est-ce que la Régie doit  
10 examiner cet écart lorsqu'elle fait son jugement  
11 éclairé du taux de production du facteur X qu'elle  
12 va retenir?

13 (14 h 20)

14 A. Okay, this is a technical question, and some of  
15 these technical questions I'm not sure are getting  
16 translated correctly. Are you talking about the  
17 difference between, say, forecasted cost and...

18 Q. **[2]** No, let me simplify it.

19 A. Okay.

20 Q. **[3]** Yesterday, we said *amortissement*, the  
21 *amortissement* costs and the *taux de rendement* - I  
22 will say it in French - grows at one thirty... we  
23 asked the Distributor to make a picture of the  
24 growth of those two costs.

25 A. Okay, which two, there's the *amortisation* and then

1 what's the other?

2 Q. [4] *Taux de rendement de la base de tarification.*

3 Cost of capital.

4 A. Okay, okay. The return on rate base.

5 Q. [5] Return on base rate, that's it. Thank you.

6 You're helping me, that's beautiful. And so, with  
7 the *engagement numéro 1*, they gave the Régie the  
8 rate, which is one thirty-five percent (1.35%).

9 A. For the sum of the two?

10 Q. [6] For the sum of the two.

11 A. And that's off forecast or historical?

12 Q. [7] Historical. It's based on the forecast. Okay, so  
13 forecast.

14 (14 h 22)

15 Well, let's do it very easily. *Ce que la*  
16 *Régie veut savoir* if there is costs, the cost rate  
17 of some precise costs in the formula that are  
18 significant, like fifty percent (50%) of the cost in  
19 the formula, if they don't grow on the same rate as  
20 the determined formula of the rate of the inflation  
21 formula, sorry, if it's significantly,  
22 *significativement* different, like we have one  
23 thirty-five (1.35) for half of the...

24 LA PRÉSIDENTE:

25 Madame Gariépy, can I help you here?

1 Me ANNIE GARIÉPY:

2 Yes, sure.

3 LA PRÉSIDENTE:

4 Q. [8] What we're trying to say, or I think what we're  
5 trying to say is that there's a big chunk, it's a  
6 bit more fifty percent (50%) of what's covered by  
7 the formula, the indexation formula, is would it  
8 grow at a rate of estimated... it's an estimation,  
9 but one point four percent (1.4%) or one point  
10 thirty-five (1.35) and in the projection, it's also  
11 estimated, but the growth for that formula would be  
12 three point three percent (3.3%). So there's a big  
13 chunk of the cost item covered that will not grow at  
14 the same pace than the indexation formula and what  
15 we wanted to know is that, does the X Factor, or the  
16 S Factor should consider that...

17 Me ANNIE GARIÉPY:

18 Q. [9] Should the Régie consider this gap in the  
19 growth?

20 LA PRÉSIDENTE:

21 Q. [10] So, do you understand my question?

22 R. I think so, although it would be helpful to know  
23 exactly which cost forecast you're talking about. I  
24 recollect that sometimes they project out the cost  
25 of known projects, even though some projects are

1 added at a later date.

2 So, let me make a few comments about this.

3 One is, I mentioned earlier in the day, how, in  
4 California once, they were embarking upon something  
5 very similar, big company, biggest gas company in  
6 North America, Southern California Gas was going to  
7 be under a revenue per customer-type of cap, like  
8 you're envisioning here, and they found out that a  
9 value of rate base was actually going to decline  
10 during the period, and in that knowledge, they added  
11 the one percent (1%), a one percent (1%) extra X  
12 Factor-type of component for that purpose.

13 Now, secondly though, you do have to  
14 acknowledge there are going to come times when the  
15 company's capital cost is going to be... grow more  
16 slowly than a revenue cap index, and if you take  
17 away their compensation, their extra compensation  
18 during those periods, they're going to come right  
19 back in the next time they have a run-up in their  
20 capital costs, and they're going to be asking for  
21 dollar for dollar recovery of that.

22 And that's also a problem when it works the  
23 other way around, like in Alberta, the companies  
24 come in and say, well right now, we have the need  
25 for high cap X, and you know, my argument as a

1 consumer advocate was, well down the road there are  
2 going to be times when you are going to have your  
3 capital costs growing more slowly. In fact, it's  
4 going to happen right after your cap X surge. But  
5 what about then? Then you're going to enjoy the  
6 benefit of just having the X Factor, when right now  
7 you're asking for dollar for dollar recovery of the  
8 surplus.

9 So, it's a complicated issue and again, I  
10 would be curious to know the actual basis for the  
11 cost forecast that this... you know, is this a real  
12 problem that you're fairly certain their capital  
13 cost is going to grow that much more slowly. But  
14 those are ways the commissions have dealt with it.  
15 Okay, well I've been asked to clarify a bit.

16 You know, there are precedents for adjusting  
17 the X Factor when there is a high likelihood that  
18 the revenue cap index is going to be over-  
19 compensatory, but that, if you start to go down that  
20 road, then you're really going down the road of  
21 tracking their capital costs when it grows slowly,  
22 and when it grows rapidly, so that you know, that is  
23 also a concern.

24 (14 h 27)

25 It is one of the reasons why I'm cheery

1 about the... any notion that they would get  
2 supplemental money for cap X during this period, if  
3 it turns out unexpectedly that they have some large  
4 program that isn't due to a *panne majeure*, it's one  
5 of the reasons I have a concern about that.

6 At any rate though, certainly when you're  
7 looking at all the numbers that have been presented,  
8 I've put out point three (.03), and the company is  
9 proposing negative point nine (-.9), or something  
10 like that. And then some other interveners have  
11 higher numbers. So, I mean, this is all something  
12 that you should definitely keep in mind when you  
13 make your X Factor decision one way or the other.

14 (14 h 29)

15 Q. [11] Merci. Ça donne une idée du contexte ça répond  
16 à une bonne partie de la question de la Régie, merci  
17 beaucoup. Par ailleurs, au niveau du facteur de  
18 productivité de l'industrie, au niveau du Facteur X,  
19 est-ce que, puis c'est une question très large, est-  
20 ce que l'essor de la production distribuée, l'essor  
21 de l'autoproduction dans l'industrie de distribution  
22 électrique influence, selon vous, le Facteur X, le  
23 facteur de productivité. Est-ce que vous avez  
24 identifié cet aspect-là comme étant un facteur qui  
25 ramène à la baisse le facteur de productivité?

1 A. I'm sorry, it's what condition that could reduce the  
2 productivity factor, I didn't catch the "what" part  
3 of it.

4 Q. **[1]** Est-ce que l'autoproduction ou la production  
5 distribuée...

6 A. Oh, distributed generation?

7 Q. **[2]** Oui.

8 A. Ah...

9 Q. **[3]** Est-ce que ça a un impact sur le Facteur X dans  
10 l'industrie?

11 A. Well, it would have an impact on X Factor for a  
12 price cap plan if it was a significant impact and of  
13 course, there are very few utilities in the United  
14 States that really have much significant penetration  
15 by self-generation. You know, places like Arizona  
16 and Hawaii and California or Australia are places  
17 where they have that, but for the rest, it doesn't  
18 really matter, it hasn't mattered that much up until  
19 now.

20 It would affect the price cap plan, but it's  
21 only going to affect a revenue cap plan to the  
22 extent that there are higher system costs because of  
23 the distributed generation, and there really hasn't  
24 been a lot of evidence that that is a case, except  
25 maybe in circumstances of very high penetration of

1 local circuits. It hasn't generally been a problem.

2 If there were some costs, you know, those  
3 costs were getting to be substantial, and I don't  
4 expect that in the next five years in Québec. You  
5 could always consider some sort of a Y Factor for  
6 that because of one thing, it would reduce their  
7 incentive to resist those costs. But at any rate, I  
8 don't think, based on my experience, it has little  
9 to do with productivity growth.

10 It's not the reason for the slowdown in  
11 productivity growth that I know, although I will say  
12 that in the study I did for Berkeley Lab, that the  
13 only part of the United States that had MRIs, and  
14 they actually had slower productivity growth, was  
15 the State of California. So, could there be some  
16 linkage there? Not that I know, but it is true the  
17 California utilities have had unusually slow  
18 productivity growth.

19 (14 h 32)

20 Q. **[4]** Merci. Une dernière question, je vous invite à  
21 prendre la planche 28 de votre présentation. Ce  
22 matin, vous nous avez parlé des coûts de retraite et  
23 vous les avez catégorisés dans la catégorie  
24 « maybe » pour un Facteur Y. Je sais que dans votre  
25 témoignage, vous en avez parlé avec maître David

1 d'OC. Cependant, j'aimerais que vous repreniez, pour  
2 notre bénéfice, vos recommandations en nous  
3 précisant les raisons pour lesquelles vous êtes  
4 indécis, pourquoi « maybe » et les éléments qui font  
5 pencher d'un côté ou de l'autre dans la balance pour  
6 vous.

7 A. Well, I think I have discussed this in my testimony,  
8 but I'll reprise some of the highlights of that  
9 discussion.

10 These are costs that are large, and they are  
11 volatile, and they are volatile chiefly due to  
12 reasons beyond the control of the utility, so they  
13 could be, for those reasons, eligible for a Y  
14 Factor.

15 On the other hand, if you... obviously, to  
16 have them Y factored, and since it's kind of a can  
17 of worms where retirement costs come from, I mean,  
18 it's going to raise regulatory cost, it's going to  
19 weaken their incentive to contain the cost, and as I  
20 mentioned in my testimony as well, it creates a  
21 perverse incentive to compensate employees through  
22 richer retirement packages, and other benefits, as  
23 opposed to salary, because this part is Y factored  
24 and the other is not.

25 And so, when you... okay, here's another

1 thing, that some of the interveners have proposed to  
2 kind of get in there and try to come up with some  
3 sort of a formula where you're only compensating  
4 because, in some mathematical way for changes in the  
5 stock market, changes in bond yields, and the like.  
6 That's a clever idea. I wish that one of them had  
7 fleshed it out more, because, here we are at the  
8 eleventh hour of making a decision on this, and  
9 there's no formula on the table. But in principle,  
10 it's... that's not a bad idea. But there isn't  
11 anything like that out there. So I felt that, you  
12 know, therefore it's really a judgment call, and you  
13 know, many regulators have come to this fork in the  
14 road, and just some have said, yes, let's Y Factor  
15 it, others have said not. I believe in Ontario, one  
16 of the concerns was the effect of this change in  
17 accounting standards that I was talking about. But I  
18 believe the Hydro-Québec is now through that, I  
19 think that's the case and so that's not a concern  
20 for you.

21 So, now you do have to remember as well  
22 that, and they would point out that they don't have  
23 earning sharing mechanism on the downside, but  
24 they're on their way to getting a pretty deluxe  
25 input price equation that, if anything, might well

1 over-compensate them, even if it's not their own  
2 proposal. The proposal that the Commission has  
3 proposed is not necessarily unreasonable. The  
4 combination of the inflation measures and the  
5 weighted average cost of capital Y Factor is pretty  
6 generous treatment of their input price conditions.

7 So, you have to kind of just weigh all of  
8 that in deciding what to do about retirement costs.  
9 Either way the Commission goes, it's one of these  
10 things I always tell my kids, if you have a hard  
11 time making a decision it's probably because it  
12 doesn't make too much difference which decision... I  
13 mean, each decision is kind of sort of right. And  
14 so, whichever way the Commission goes on this would  
15 probably be, you know, something they won't keenly  
16 regret.

17 But what I proposed as the compromise is to  
18 put this materiality threshold and a dead zone for  
19 the variations, and so that's kind of a happy  
20 medium, if a happy medium is even required. A happy  
21 medium isn't required if you're not going to Y  
22 Factor, obviously if you're not going to Y Factor  
23 the retirement costs.

24 Q. [5] Donc, le seuil de matérialité que vous proposez  
25 c'est, si je vous comprends bien, c'est un seuil

1 pour la variation, la variance, pas pour  
2 l'éligibilité. Ce n'est pas pour l'éligibilité.

3 (14 h 37)

4 A. That's correct, it's for the écart.

5 Q. **[6]** Ça complète mes questions, merci.

6 LA PRÉSIDENTE :

7 Merci Maître Gariépy.

8 INTERROGÉ PAR LA FORMATION:

9 Mme LISE DUQUETTE :

10 Q. **[7]** Lise Duquette pour la formation, je n'ai que  
11 trois questions, et peut-être pour continuer sur  
12 cette dernière-là, pour ma compréhension. Vous  
13 n'avez pas, dans votre mémoire à la page 60 sur ce  
14 sujet-là, vous dites, et je vous cite, à la fin :

15 The decision on whether to Y Factor  
16 retirement costs should depend on the  
17 extent to which the MRI protects HQD  
18 from other kinds of risk.

19 Are you with me with that?

20 A. Yes.

21 (14 h 38)

22 Q. **[8]** So you said that the revenue cap index is, I  
23 don't remember the word, but you said it was pretty  
24 generous, so something to that effect. So would you  
25 say that it should be in the coverage of the revenue

1 cap index, or do you say it should be a Y Factor?

2 A. Well, I really I'm kind of just on the fence about  
3 this. Just to clarify, it's not just the revenue cap  
4 index unless you include in that the Y factoring of  
5 the cost of capital, but it's the whole revenue  
6 escalation mechanism, you know, it's got a number of  
7 goodies for Hydro-Québec.

8 So I mean, I find myself just on the edge on  
9 this. I mean, we've been seeing financial market  
10 volatility just in the last few days, it is true  
11 that they don't have a sharing of their deficit  
12 earnings. I really just don't... I just think it's a  
13 judgment call.

14 Q. **[9]** Thank you. On the...

15 M. JOCELYN B. ALLARD :

16 R. Je m'excuse, Madame la Présidente, un petit instant.

17 LA PRÉSIDENTE:

18 Q. **[10]** Oui, allez-y.

19 M. JOCELYN B. ALLARD:

20 Je vais me permettre de rajouter pour les membres,  
21 évidemment, vous savez, on a discuté auparavant du  
22 fait que monsieur Lowry a travaillé avec plusieurs  
23 intervenants, il y a une espèce de travail de  
24 compromis qui se fait, mais je peux vous dire que  
25 pour y avoir réfléchi puis en avoir parlé, on est en

1           faveur de quelque chose qui est, comme je le  
2           mentionnais dans mes notes introductives, plus  
3           englobant comme mécanisme incitatif.

4                       Et forcément, à ce moment-là, je pense que  
5           même les coûts de retraite devraient tomber sous la  
6           formule, ça serait notre... Considérant que l'expert  
7           dit bon, d'un côté ou de l'autre, bien, pour éviter  
8           justement, puis j'aimais les questions sur comment  
9           ça vient influencer les décisions qui sont prises à  
10          l'intérieur de l'utilité quand on vit sous un  
11          mécanisme incitatif.

12                      Oui, ça a de l'importance, oui, ça influence  
13          les décisions puis je trouvais votre question  
14          intéressante à savoir est-ce qu'on va négocier, par  
15          exemple, les augmentations de la rémunération  
16          globale en fonction de savoir qu'est-ce qui va être  
17          Y factoré puis qu'est-ce qui le sera pas. Alors, je  
18          pense que tout ce qui serait inclus de façon  
19          englobante serait préférable à nos yeux.

20          LA PRÉSIDENTE:

21          Je vous remercie.

22          Mr. MARK NEWTON LOWRY:

23          A. I would like to add that when I'm putting myself on  
24          the fence, it's in the context of my proposal. If  
25          you enacted all parts of my proposal, which I

1 wouldn't think you would, but you know, you'll  
2 probably take a few of them, then I'm on the fence  
3 because I said I agreed that the *combustible* should  
4 not be Y factored. I felt that the cost of the  
5 vegetation management should not be Y factored. I  
6 felt that the X factor should be zero point three  
7 (0.3) and so on. I mean, in that context, it would  
8 put me on the fence. If you were to make a  
9 significant concession on any of the issues that I  
10 was disagreeing with, then I would definitely put  
11 myself in the camp of not Y factoring retirement  
12 costs.

13 (14 h 41)

14 Q. [11] Thank you. And also on pension cost, yesterday  
15 I asked Mr. Coyne if about a, and you talked about  
16 it, about the YCC factor, just to extract some... to  
17 catch the variances due to the market. And you said  
18 it was an interesting idea, but you should have seen  
19 it fleshed. Have you seen it elsewhere in any other  
20 regulatory board, decide on something similar to  
21 that?

22 A. I think it's one of those things like a retirement  
23 cost that there's a lot of different treatments that  
24 have been used. In California, for example, they've  
25 had multi-rate plans since the nineteen eighties

1 (1980s), and the cost of capital is always... in  
2 Italy, they don't use indexing a lot there, just,  
3 I've only used it once in a while, but the cost of  
4 capital is always a separate proceeding that goes on  
5 and on and on. So, that's one data point. I mean, I  
6 think there are plans that there is no special  
7 adjustment at all for changes in the cost of capital  
8 during the period. I would think that's even the  
9 majority of precedence, there is no such thing.

10 I also mentioned earlier that I thought  
11 that, to give them a hundred percent (100%) of  
12 changes in the weighted average cost of capital was  
13 too much because we're talking about a four-year  
14 plan, and inflation is going to pick up some of the  
15 increase in the cost of debt and equity anyways.

16 So, it seemed to me to be overly generous to  
17 give them compensation for both and that it would be  
18 enough just to give them escalation for the bond  
19 yield. But as I understand it, you made a decision  
20 on that, it's not an unreasonable approach and then,  
21 you know, if that's a given, then think of... look  
22 at all the other aspects of the plan in the context  
23 that you are particularly generous on a portion of  
24 inflation that is particularly likely to rise in the  
25 next few years. You're particularly generous. I

1 mean, it's already picked up to some degree in the  
2 IPC Québec, you also are giving the labour price  
3 escalation, so you know, you're being pretty  
4 generous there so you can afford be more... less  
5 generous on... relative to what they ask on some  
6 other items.

7 Q. **[12]** Thank you for that. And that was for the, yes,  
8 the Y on cost of capital, but have you seen  
9 something similar for the cost of pension, a Y like  
10 that...

11 R. Oh, yeah.

12 Q. **[13]** ... that would capture the variance?

13 R. It's about, I don't know, half, but some... you  
14 know, many plants have it and many plants do not. I  
15 was using that as an example of how it shows that  
16 it's a judgment call, because a lot of plants have  
17 it, and a lot of plants don't.

18 (14 h 45)

19 Q. **[14]** Okay. I will speak in French just to make sure  
20 I'm understood. Je comprends qu'il y a des Y pour  
21 les coûts de retraite, ça, ça va. Il y a les coûts  
22 de retraite qui peuvent être dans la formule  
23 d'indexation, ça, ça va. On se demandait, de la même  
24 façon que la FCEI ou d'autres l'avaient proposé, de  
25 mettre un Y pour capturer les écarts qui pourraient

1 être dus au marché dans la, ou enfin, les  
2 fluctuations dues au marché dans les coûts de  
3 retraite. Est-ce que vous avez vu un Y pour capturer  
4 ces écarts dûs au marché pour des coûts de pension  
5 dans d'autres forums comme AUC ou d'autres provinces  
6 ou d'autres États aux États-Unis.

7 A. I do not recall a mechanism like that, but as I've  
8 said earlier, it's not a bad idea. It could be worth  
9 some work. I mean, it's an important enough  
10 component of cost that the work might be worthwhile  
11 for that, but I have not seen an actual example of  
12 that.

13 Q. [1] Merci. Enfin, j'ai une dernière question et  
14 c'est sur les *major capital projects*. Vous nous  
15 dites non sur la planche 28, mais vous avez fait des  
16 exceptions concernant des travaux majeurs dus à, là,  
17 vous parlez des autoroutes ou, enfin, je ne veux pas  
18 dire des détournements, mais des...

19 M. JOCELYN B. ALLARD :

20 Pannes majeures.

21 LA PRÉSIDENTE:

22 Q. [2] Bien, pannes majeures ou, enfin, des  
23 reconstructions...

24 Me JEAN-OLIVIER TREMBLAY:

25 Relocalisation.

1 LA PRÉSIDENTE:

2 Q. [3] Relocalisation, merci beaucoup. J'aimerais  
3 savoir, un projet comme LAD qui a eu lieu il y a  
4 quelques temps déjà, mais que l'entreprise  
5 arriverait avec quelque chose de majeur, dans ce  
6 cas-ci c'était... on parlait de près d'un milliard  
7 (1 G), je me souviens plus du chiffre exact, qui est  
8 là, qui est fait explicitement pour aller rechercher  
9 de l'efficience. Est-ce que selon vous, ça, ça  
10 devrait pas être dans un Z factor?

11 A. Well, one thing I'd like to say about this is that  
12 there is nothing like this that we know about that  
13 is on the horizon for the next five years. These are  
14 the sorts of things that would be anticipated long  
15 in advance.

16 Beyond that, one of the things that you get  
17 into is the issue of you could be giving them  
18 upfront dollar for dollar compensation for the cost  
19 of something that's supposedly going to improve  
20 efficiency, but if those efficiency gains are only  
21 gradually realized in the future, then in the next  
22 five years they could be subject to a, you know,  
23 windfall gain from being dollar for dollar recovery  
24 of the cost, but then they get to capture many of  
25 the benefits because all the benefits aren't

1 captured in the next rate case.

2 That's one of the reasons that, if you're  
3 going to do a major capital project tracker, that  
4 you would like to have a dead zone in it. You don't  
5 give dollar, and that's what they do in Ontario,  
6 they would not give dollar for dollar... they would  
7 not give dollar for dollar recovery. Currently, in  
8 Ontario, they knock off ten percent (10%) and I  
9 don't know that that was a good idea, that the  
10 twenty percent (20%) was a more appropriate for that  
11 kind of a factor.

12 But again, just going down that, it's a very  
13 slippery slope giving them compensation whenever  
14 they have rapid cost growth, and then permitting the  
15 consumers only the benefit of the industry  
16 productivity trend the rest of the time. It's  
17 essentially unfair to consumers because, in the end,  
18 they are not promised the benefit of industry  
19 productivity growth. The industry productivity  
20 growth becomes a floor for the cost escalation that  
21 the companies can actually achieve.

22 (14 h 50)

23 Q. **[4]** Thank you. That will be all my questions. Thank  
24 you very much. Maître Sarault, est-ce que vous  
25 avez...

1 M. PIERRE VÉZINA :

2 R. Madame la Présidente, j'aurais juste...

3 Q. [5] Ah! Oui.

4 R. ... si vous me permettez.

5 Q. [6] Bien sûr.

6 R. Juste un commentaire et une préoccupation de la part  
7 de nos membres. Premier commentaire concerne ce  
8 qu'ils vivent quotidiennement dans un monde non  
9 réglementé, à savoir une compétition extrêmement  
10 sévère, surtout dans le milieu où, moi, je  
11 travaille. Et des gains de productivité, c'est  
12 quelque chose auxquels on pense systématiquement  
13 tous les jours. Envisager qu'on s'arrête d'en faire,  
14 c'est accepter qu'on va fermer. Alors,  
15 naturellement, nos membres s'attendent que leur  
16 fournisseur travaille dans le même sens parce que ça  
17 aussi, ça leur permet de réussir dans un monde où  
18 effectivement on est principalement les exportateurs  
19 sur des marchés qui sont extrêmement difficiles et  
20 extrêmement compétitifs.

21 L'autre préoccupation que je voudrais  
22 émettre, c'est que si on avait un mécanisme  
23 incitatif sur lequel on verrait systématiquement un  
24 distributeur qui fait encore des trop-perçus puis  
25 qui, en bout de ligne, nous dit « c'est pas bien

1 grave, on va vous en retourner la moitié dans le  
2 premier pour cent puis... » Écoutez, je pense que ce  
3 ne serait pas une réussite.

4 Et voilà mon message.

5 LA PRÉSIDENTE :

6 Je vous remercie beaucoup, Monsieur Vézina. Maître,  
7 à moins que... Ça va? Maître Sarault, avez-vous...

8 Me GUY SARAULT :

9 J'aurais une...

10 LA PRÉSIDENTE :

11 La traduction nous fait des grands signes pour que  
12 vous soyez au micro. Vous n'avez pas le bénéfice de  
13 les voir, mais je les vois.

14 (14 h 52)

15 RÉINTERROGÉS PAR Me GUY SARAULT :

16 Q. [7] I would just like to follow up on a line of  
17 question that was start by the Régie's attorney, and  
18 completed by Madame Duquette, and I think that it's  
19 a very important point, and for purposes of my  
20 questions, I will ask you, Dr. Lowry, to take two  
21 documents, the first document is the main evidence  
22 filed by HQD -- it's its proposal -- Exhibit B-0177.  
23 Also, HQD-20, document 1, at page 17. Do you have  
24 that?

25 A. Yes.

1 Q. [15] The second document I would like you to take  
2 and put side by side with the one I just asked you  
3 to pull, is Exhibit D-0212, which is HQD's answer to  
4 "Engagement numéro 1."

5 A. Was this just filed yesterday, an undertaking from  
6 yesterday? No, I don't have it.

7 Q. [16] It's an undertaking. Est-ce qu'on a une copie  
8 papier? Oh, merci beaucoup. I would first like to  
9 have a discussion about the first document I've  
10 asked you to pull, which is an extract from HQD's  
11 main evidence. What we have at table 4 is a picture  
12 of the three separate indexes that are proposed for  
13 the inflation factor, correct? With the ponderation.  
14 So, in the first column, *rémunération*, you have an  
15 index that's proposed of two point five percent  
16 (2.5%) for inflation, correct?

17 R. Yes.

18 Q. [17] And the second column, we have *coûts liés aux*  
19 *actifs*, so this is the inflation factor proposed for  
20 assets, cost of assets, correct?

21 R. Yes.

22 Q. [18] It's a separate index. And it will take into  
23 account the ponderation, the value of assets in the  
24 overall cost of service of Hydro-Québec. So, in this  
25 case, we see that the cost of assets for two

1 thousand eighteen (2018) -- this is today's  
2 assessment -- it would be at one point three billion  
3 dollars (\$1.3B) out of two point three (2.3), for a  
4 ponderation factor of fifty-six point eight percent  
5 (56.8%), you got that?

6 R. Yes.

7 Q. **[19]** So, it means that this category of costs would  
8 be allowed under the formula to progress by two  
9 point four percent (2.4%) a year, correct? That  
10 would be the inflation factor applicable to this  
11 category of costs?

12 R. Yes, of course, they can raise the costs by more  
13 than that, but... or less, as they wish, but in  
14 terms of the accountability of the inflation  
15 measure, this is the inflation that is addressing  
16 that cost.

17 Q. **[20]** Correct. And the third category is the costs of  
18 other goods and services, which is subjected to  
19 another inflation factor, which is lower, one point  
20 six percent (1.6%), as per the IPC Services Québec?

21 R. Yes.

22 Q. **[21]** Correct?

23 R. M'hm.

24 Q. **[22]** So this third category would be allowed to  
25 progress up to one point six percent (1.6%) to be

1 within the revenue cap, correct?

2 R. Yes.

3 Q. **[23]** Good. As you may see, let's go back to the  
4 second category, cost of assets. It does include two  
5 major components, namely amortization and return on  
6 the rate base, you agree with that?

7 R. Yes, those are the two biggest components.

8 (14 h 57)

9 Q. **[24]** Okay. Can I suggest to you that, if by any  
10 chance the actual cost of asset costs would  
11 progress, as per HQD's real cost of service over the  
12 next five years, if they would manage to contain  
13 these costs, let's say below two point four percent  
14 (2.4%), they would be in a very winning position.

15 R. Okay.

16 Q. **[25]** Do you agree?

17 R. Well, not entirely, because if you're going to break  
18 apart the inflation measure, you would also want to  
19 break apart the productivity measure, so you would  
20 be assigning to that the product... first of all,  
21 the full formula also has a productivity component  
22 and a customer growth component, so the product, to  
23 be fully consistent, you would be applying the  
24 partial factor productivity of capital, which is  
25 slower growing than is the partial factor

1 productivity of the *charges d'exploitation*.

2 Q. [26] If we stick to the inflation factor, for the  
3 moment, okay...

4 R. Okay.

5 Q. [27] ... let's assume that I have a limit of two  
6 point four percent (2.4%) inflation factor for my  
7 cost of assets, okay?

8 R. Yes.

9 Q. [28] Let's look again just at inflation. If in  
10 reality my cost of assets progress not by two point  
11 four percent (2.4%) a year, but just by one point  
12 four (1.4), am I winning from the inflation factor  
13 point of view?

14 R. From the inflation factor point of view, you would  
15 be winning.

16 Q. [29] Okay. I want you to look at the table E1, in  
17 the second document that I've asked you to pull out.  
18 And this is the actual projection of the two most  
19 important components of asset costs over the horizon  
20 from two thousand sixteen (2016) and two thousand  
21 and twenty (2020), and as you can see, the  
22 conclusion, their own projection is that their  
23 actual costs for depreciation and return on the rate  
24 base are expected to grow by an annual rate of one  
25 point thirty-five percent (1.35%) per year.

1 I ask you the same question, if this  
2 scenario materializes over the horizon from two  
3 sixteen (2016) to two thousand and twenty (2020),  
4 are they winning from an inflation factor  
5 perspective?

6 R. Yes, from an inflation factor perspective, they are  
7 winning.

8 Q. [30] The inflation factor would be, in reality, in  
9 retrospective, in two thousand and twenty (2020)?

10 R. Well...

11 Q. [31] It would be too generous to them?

12 R. I would also caution you that... I'm not sure where  
13 that two point four percent (2.4%) comes from, and  
14 as I've said before, that the whole idea of them  
15 using the... what's called here the *implicite des*  
16 *investissements des entreprises*...

17 Q. [32] That's a separate index that they have chosen.

18 R. No, I know, but I'm saying, that's not necessarily  
19 the right one to use, and I'm also not sure where  
20 the two point four percent (2.4%) comes from.

21 Q. [33] That could be the purpose of my question.

22 R. Oh, okay. I see.

23 Q. [34] Thank you. This was my question.

24 (15 h 01)

25

1 LA PRÉSIDENTE:

2 O.K. Merci beaucoup, Maître Sarault. Alors, là-  
3 dessus, je pense que ça va conclure la preuve de  
4 l'AQCIE-CIFQ et ça va conclure l'audience pour  
5 aujourd'hui. On va se reprendre, on va recommencer  
6 lundi matin prochain à neuf heures avec la preuve de  
7 l'AHQ-ARQ. Et puis là-dessus, on va vous libérer. Je  
8 vais vous dire merci beaucoup et puis un bon retour,  
9 monsieur Lowry. Alors, j'espère que vous avez pu  
10 profiter de l'hiver comme vous le souhaitiez. Alors,  
11 passez une belle journée puis une bonne fin de  
12 semaine.

13

14 AJOURNEMENT DE L'AUDIENCE

15

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16

1           SERMENT D'OFFICE

2

3           Nous, soussignés, **CLAUDE MORIN**, et **MONIQUE J. LE**  
4           **CLERC**, sténographes officiels, certifions sous notre  
5           serment d'office que les pages qui précèdent sont et  
6           contiennent la transcription fidèle et exacte des  
7           témoignages et plaidoiries en l'instance, et ce,  
8           conformément à la Loi.

9           Et nous avons signé,

10

11

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\_\_\_\_\_

14           **CLAUDE MORIN**

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20           **MONIQUE J. LECLERC**