

**Réponses du Transporteur
à la demande de renseignements numéro 3
de l'Association québécoise des consommateurs
industriels d'électricité et du
Conseil de l'industrie forestière du Québec
(« AQCIE-CIFQ »)**

**DEMANDE DE RENSEIGNEMENTS N^o 3 DE L'AQCIÉ-CIFQ À L'EXPERT
NERA
D'HYDRO-QUÉBEC DANS SES ACTIVITÉS DE TRANSPORT D'ÉLECTRICITÉ (LE
TRANSPORTEUR)
RELATIVE À LA DEMANDE DU TRANSPORTEUR DE MODIFICATION DES TARIFS ET
CONDITIONS DES SERVICES DE TRANSPORT POUR LES ANNÉES 2021 ET 2022**

Création d'un CÉR dépenses en capital

1 Référence: B-0159 pages 15 et 16 PDF

Préambule :

NERA mentionne:

The Régie's opinion about problems in forecasts in D-2020-041 comes solely from its examinations of the differences between HQT's forecasts and actual capital cost totals. Because the forecast uses regulatory lag as the means of incentivizing HQT, after-the-fact comparisons between those forecasts and actual values are not a valid means by which to assess the reasonableness of those forecasts.

In other words, the incentive program is designed to provide an incentive to beat forecasts—in other words, to produce such a positive dollar total. The only way to evaluate the reasonableness of the project forecasts is to assess them at the times when HQT makes them. Pointing to a positive variation (i.e., actuals below forecasts) over time constitutes an inappropriate use of hindsight—which has the effect of undermining the incentive that justified the use of forecast test years by the Régie from the beginning.

Demandes :

- 1.1.** Veuillez indiquer si dans la détermination de la base de tarification de l'année témoin, il est raisonnable de supposer qu'une société a intérêt à maximiser la croissance de ses investissements.

Réponse :

1 **Dr. Makholm does not think that the stated assumption, alone, is reasonable. As**
2 **is the case for any regulated utility in the position of HQT, its incentives include**
3 **both reasonable returns and the continuation of a workable regulatory regime**
4 **that advances both the public interest and its profitability. Such is the reason**
5 **for Dr. Makholm's inclusion of a section describing "North American regulatory**
6 **common law"¹ and his description that those methods aimed to "harmonize the**
7 **relations between those parties who are otherwise in actual or potential conflict"**
8 **(p. 19).**

¹ Exhibit B-0159, [pp. 17-22](#).

- 1.2. Est-il raisonnable de supposer que les écarts systématiques entre la valeur des immobilisations prévues et la valeur des immobilisations réelles montrent que HQT a intérêt à présenter une prévision optimiste de la valeur des immobilisations et du moment de leur mise en service? Veuillez commenter.

Réponse :

1 **Dr. Makholm does not agree with the premise of the question that there are**
2 **“systematic discrepancies.” See his answer to Régie 1.1 for his discussion of**
3 **how he interprets HQT’s actions to improve its forecasts and the change in**
4 **“discrepancies” after the period 2014-2018.**

- 1.3. N’est-il pas raisonnable d’examiner les écarts historiques entre les immobilisations prévues et les immobilisations réelles, incluant les écarts quant à leur date de mise en service, pour valider l’intérêt d’HQT à présenter des prévisions optimistes? Veuillez commenter.

Réponse :

5 **The question does not define “optimistic forecasts.” To the extent that such a**
6 **term is synonymous with “exaggerating capital cost growth,” as used by AQCIE-**
7 **CIFQ’s consultant PEG, then Dr. Makholm does not agree with the premise of**
8 **the question in two respects: (a) that exaggerating capital cost growth is in**
9 **HQT’s interests; and (b) that examining historical differences can inform**
10 **anything in particular about HQT’s incentives. Dr. Makholm described, in a way**
11 **consistent with regulatory common law, the reasonable elements of HQTs**
12 **incentives as a North American regulated service provider. Those incentives**
13 **exist regardless of any historical differences.**

2 **Référence:** B-0159 Report page 16 PDF

Préambule :

NERA mentionne:

It is not reasonable to presume that the expected value of the practical incentive of beating forecasts is zero based on after-the-fact comparisons. The forecasts are there to improve upon by management action at HQT—otherwise they are an ineffectual incentive mechanism

Demande :

2.1. Si la prévision n'était pas biaisée, n'y aurait-il pas alors des années où les immobilisations prévues (incluant leur date de mise en service) seraient sous-évaluées et des années où elles seraient surévaluées?

Réponse :

1 **Dr. Makhholm does not agree with the premise of the question that “bias” will be**
2 **evident in the comparison of forecast to actual values. To him, there is no**
3 **reason, as a conceptual matter, why HQT would not be performing usefully**
4 **under the Régie’s incentive regime by “beating” every forecast.**

5 **That said, however, Dr. Makhholm sees that the forecast variances with actual**
6 **values, in aggregate, are not always positive, as discussed in response to**
7 **Régie 1.1.**

3 **Référence:** B-0159 Report page 17 PDF

Préambule :

NERA mentionne:

Neither FCEI nor PEG have offered any reasonable evidence, or any recommendation for obtaining evidence, to support their charges of bias, exaggeration, or a basis upon which any future “trimming” could occur.

Demandes :

3.1. Veuillez confirmer qu'une preuve statistique est valable pour déterminer s'il y a un biais dans une prévision. Si vous ne le confirmez pas, veuillez indiquer comment un tel biais peut être démontré ou infirmé.

Réponse :

8 **The question does not define “statistical evidence.” Dr. Makhholm will provide**
9 **two of his own definitions of “statistical evidence” below to answer the question.**
10 **He does not in any event, as in his answer to 2.1 above, accept that HQT has an**
11 **incentive to provide biased forecasts. His answer will deal with whether there is**
12 **“statistical evidence” to deal with the question of “inaccurate” forecasts.**

13 **To the extent that “statistical evidence” refers ex-ante analyses of project**
14 **forecasts, at the time they are presented, according to statistical methods of**
15 **determining means or medians for elements of project costs for similar types**

1 projects (which Dr. Makholm would think reasonable in such forecasts as a
2 matter of course for HQT’s planners), then such statistical methods could be
3 helpful in improving the accuracy of forecasts.

4 To the extent that “statistical evidence” refers to the discussion of “Statistical
5 Benchmarking” in the 15 February 2021 PEG report: “Transmission Productivity
6 and Benchmarking Study,” Dr. Makholm’s denies the usefulness of such
7 methods to deal with any issues of the accuracy of HQT’s forecasts. There are
8 two reasons why. First, as he described in response to questions from the Régie
9 1.5.1 and 1.5.2, ex post analyses cannot validate the accuracy of forecasts in an
10 incentive regime that usefully rewards HQT for lowering its actual costs below
11 forecasts. Second, Dr. Makholm (echoing Alberta’s AUC in his statement, p. 15),
12 concludes that complicated statistical methods (including econometric
13 methods), offered by experts in contested proceedings, are not useful for
14 credible PBR plans.

3.2. Veuillez fournir des arguments qui permettraient de démontrer que les écarts
systématiques entre les immobilisations prévues et les immobilisations réelles,
(incluant leur date de mise en service), ne sont pas dans l’intérêt de HQT.

Réponse :

15 As above, in 1.2, Dr. Makholm does not agree with the premise of the question
16 that there are “systematic discrepancies.” See his answer to Régie 1.1 for his
17 discussion of how he interprets HQT’s actions to improve its forecasts and the
18 change in discrepancies after the period 2014-2018. With respect to the issue of
19 start dates specifically, Dr. Makholm refers to his answer to Régie 1.2.1.

4 Référence: B-0159 Report page 18 PDF**Préambule :**

NERA mentionne:

A consistent error for both FCEI and PEG is their focus on the supposed “small incentive” properties associated with the one-year cost-of-service computations—instead of the factual targets that update each year with a new set of capital addition forecasts. But as all regulatory analysts should agree (as prominent economists, like Kahn, have themselves usefully stated), the incentive operates at the margin—which persists when the future rate trajectory associated with capital additions is set in advance.

A one-year duration of forecasts does not diminish the marginal incentive. What the one-year durations do is provide a limit on the size of the cumulative award given the yearly cost-of-service updates for capital additions. Such limits are useful for an orderly rate regime that cannot deviate too far from what is reasonable, either for HQT or its customers. PEG considers such an incentive mechanism “weak,” but PEG has no basis for that opinion—the incentive, based in regulatory lag, is both visible and persistent over the years. The one-year rolling duration of forecasts simply limits the cumulative savings for HQT.

Demande :

4.1. Veuillez clarifier ce que vous entendez par «incentive operates at the margin ».

Réponse :

1 **Economists on the whole take the importance of marginal incentives on**
2 **economics as a truism too obvious to warrant extended discussion; for**
3 **example, accepting that equilibrium in markets is that level of output where**
4 **marginal revenue equals marginal cost (MR = MC).**

5 **In its application to regulation, however, such economists as Alfred Kahn devote**
6 **extended discussion of such marginal incentive principles, as when he writes in**
7 **his 1971 book (Vol 1, p. 65), “The central policy prescription of microeconomics**
8 **is the equation of price [i.e. marginal revenue] and marginal cost. If economic**
9 **theory is to have any relevant to public utility pricing, that is the point at which**
10 **the inquiry must begin.”**

11 **Every book examining the economics of regulated industries (including Dr.**
12 **Makholm’s own), has extended discussions of the important of marginal cost**
13 **incentive issues.**

5 Référence: B-0159 Report pages 10 et 11 PDF

Préambule :

À la référence, NERA présente un tableau intitulé « HQT Forecast Accuracy Improvement Measures » indiquant les mesures prises par HQT depuis 2010 pour améliorer la fiabilité de ses prévisions et il mentionne : « *Since that time, HQT has continued to refine and strengthen those measures,* »

Demande :

5.1. Veuillez indiquer si NERA est en mesure de confirmer que ces mesures ont amélioré la fiabilité des prévisions de HQT. Si oui, veuillez présenter les faits supportant votre confirmation.

Réponse :

1 **Dr. Makhholm has done no close study of the elements of the forecasts, although**
2 **he has noted (see responses to Régie 1.7.1), that the listed improvements are**
3 **reasonably associated with lower differences, after 2018.**

6 Référence: B-0159 Report page 24 PDF**Préambule :**

À la référence, NERA réfère à une décision de la Régie concernant les conditions pour la création d'un CÉR. NERA mentionne :

The Régie has authorized several deferral and variance accounts for HQT in the past. The purposes of these accounts fit with the above criteria from the Régie (that the cost is beyond the provider's control and can have a significant impact on revenues). These criteria established by the Régie and used by HQT are no exception to the rule that is widely employed by North American regulators, which limits expense deferral accounting to cases where: (1) the cost is material and extraordinary in nature, and (2) the cost was incremental to what was allowed in rates.

Demande :

6.1. Veuillez indiquer si les deux conditions énoncées sont suffisantes pour justifier la création d'un CÉR. Veuillez expliquer votre réponse.

Réponse :

- 1 **If the question pertains to the incentive based forecast test year for capital**
- 2 **expenditures, as reflected in the body of Dr. Makholm's evidence (Exhibit**
- 3 **B-0159), his answer is no.**