MRI Design for

Hydro-Québec Distribution

Mark Newton Lowry, PhD

President

Matt Makos

Consultant

5 January 2018

PACIFIC ECONOMICS GROUP RESEARCH LLC
44 East Mifflin, Suite 601
Madison, Wisconsin USA 53703
608.257.1522 608.257.1540 Fax

- Commissions that have made X factor decisions often comment on the research methods used by PMF witnesses. This encourages witnesses to use better methods in subsequent MRI proceedings.
- Much of the recent variation in PMF trends reported by witnesses in MRI proceedings is due to research methods that the Régie may find objectionable or inappropriate for application to a revenue cap index. It is reasonable for the Régie to give little or no weight to such evidence in its decision.
- Utilities have frequently hired witnesses in recent years who have little experience in the measurement of PMF trends of energy utilities. It is chiefly these witnesses who have recommended substantially negative productivity growth trends. These witnesses also frequently propose 0% stretch factors.
- The slowdown in productivity growth which utility witnesses often highlight is due chiefly to slowing growth in residential and commercial average use which is irrelevant to the choice of an X factor for HQD. They often conjecture that slow productivity growth is also driven by high capex requirements but provide little evidence to substantiate this notion.
- Commissions are sometimes reluctant to embrace results of one productivity study because they do not prefer every aspect of any one study's methodology. However, this does not mean that they routinely take an average of the recommendations of all witnesses when choosing a base productivity trend or stretch factor. An averaging approach incentivizes parties to produce outlier results that can move the average. Judgement can instead focus on the most recent studies and the best methodologies.

5. Application to HQD

5.1 Inflation Measure

Régie Ruling

The Régie traced the outlines of an inflation measure for HQD's revenue cap index in D-2017-043 but made no final decision. It suggested that the inflation measure should summarize growth in two inflation subindexes: the *indice des prix a la consommation* ("IPC", aka consumer price index) for Québec and the average weekly earnings ("AWE") of Québec industrial workers. Both of these price indexes are calculated by Statistique Canada. The revenue cap index inflation measure would take the average AWE inflation in the last three years ending 31 March and the inflation in $IPC^{Québec}$ for the last year. Cost share weights would be used for these subindexes, following the precedent of the Company's current *formule paramétrique* for the *charges d'exploitation revenu requis.*

> **la Régie retient la proposition du Distributeur à l'effet que le facteur de pondération entre l'inflation et le taux de croissance des salaires soit déterminé selon une méthode similaire à celle utilisée actuellement dans les demandes tarifaires aux fins du calcul de l'enveloppe des charges d'exploitation, soit en fonction de la quote-part de la masse salariale, excluant la portion capitalisable, sur les charges totales couvertes par la formule paramétrique.** [49]

This general approach to the design of a rate or revenue cap inflation measure is sensible and is currently used to regulate energy utilities in Alberta, British Columbia, and Ontario. It helps the revenue cap index track local inflation pressures that utilities experience while sidestepping the complicated issue of capital price measurement which might be encountered with a more complex utility input price index.

We nonetheless have concerns with the Régie's suggested inflation measure treatment in three areas: the choice of a macroeconomic inflation measure, the cost share weights, and the appropriate time period to consider. We discuss these issues in turn.

Macroeconomic Inflation Measure

Table 6 shows trends in six macroeconomic price indexes that are sensible candidates for use in Québec. We also include the average weekly earnings of Canadian and Québec industrial workers. Here are the indexes with brief discussion of noteworthy features.

[49] Régie, op. cit., p. 37.

Table 6
Alternative Inflation Measures for Canada and Québec[1]

	Canada								Québec							
	IPC[2]		GDPIPIs[3]				AWE[4]		IPC[2]		GDPIPIs[3]				AWE[4]	
	All Items		Final Consumption		Final Domestic Demand		All Employees		All Items		Final Consumption		Final Domestic Demand		All Employees	
Year	Level	GR	Level	GR	Level	GR	Level	GR	Level	GR	Level	GR	Level	GR	Level	GR
1982	56.1	10.4%	55.8	10.0%	59.0	9.1%			57.1	10.9%	58.1	10.6%	61.7	9.6%		
1983	59.4	5.7%	59.6	6.6%	62.2	5.4%			60.3	5.4%	61.4	5.6%	64.7	4.8%		
1984	62.0	4.2%	62.3	4.4%	64.9	4.1%			62.8	4.0%	64.4	4.8%	67.6	4.4%		
1985	64.4	3.9%	64.8	3.9%	67.2	3.6%			65.5	4.3%	67.1	4.1%	70.0	3.6%		
1986	67.1	4.0%	67.5	4.1%	69.8	3.8%			68.7	4.7%	69.9	4.1%	72.8	3.9%		
1987	70.0	4.3%	70.3	4.1%	72.8	4.1%			71.6	4.2%	73.0	4.4%	75.9	4.2%		
1988	72.8	3.9%	73.1	3.9%	75.5	3.7%			74.3	3.6%	75.6	3.5%	78.4	3.3%		
1989	76.5	4.9%	76.5	4.5%	78.9	4.4%			77.4	4.2%	78.9	4.2%	81.4	3.8%		
1990	80.2	4.7%	80.1	4.6%	82.0	3.8%			80.8	4.3%	82.4	4.4%	84.6	3.7%		
1991	84.7	5.5%	83.9	4.7%	84.7	3.3%			86.7	7.1%	86.5	4.8%	87.3	3.2%		
1992	85.9	1.4%	85.7	2.1%	86.4	2.0%			88.4	1.9%	87.9	1.7%	88.8	1.6%		
1993	87.5	1.9%	87.4	1.9%	88.0	1.8%			89.5	1.3%	89.3	1.5%	89.9	1.2%		
1994	87.6	0.1%	88.5	1.3%	89.5	1.7%			88.4	-1.3%	89.7	0.5%	90.9	1.1%		
1995	89.6	2.2%	89.8	1.4%	90.5	1.1%			89.9	1.7%	90.5	0.9%	91.7	0.9%		
1996	90.9	1.5%	90.9	1.2%	91.5	1.1%			91.3	1.6%	91.4	1.0%	92.2	0.6%		
1997	92.4	1.7%	92.2	1.5%	93.0	1.6%			92.7	1.4%	92.5	1.2%	93.3	1.2%		
1998	93.4	1.0%	93.5	1.3%	94.3	1.5%			94.0	1.4%	93.6	1.2%	94.4	1.2%		
1999	95.0	1.7%	95.2	1.8%	95.6	1.3%			95.4	1.5%	95.3	1.8%	95.8	1.4%		
2000	97.5	2.7%	97.9	2.8%	98.1	2.6%			97.8	2.4%	98.2	3.0%	98.2	2.5%		
2001	100.0	2.5%	100.0	2.2%	100.0	1.9%	657		100.0	2.3%	100.0	1.8%	100.0	1.8%	623	
2002	102.2	2.2%	102.4	2.3%	102.4	2.4%	673	2.4%	102.0	2.0%	102.2	2.2%	102.2	2.2%	639	2.4%
2003	105.1	2.8%	104.4	2.0%	104.0	1.5%	691	2.7%	104.6	2.5%	104.4	2.1%	103.9	1.6%	657	2.8%
2004	107.1	1.8%	106.1	1.6%	105.9	1.8%	709	2.6%	106.6	1.9%	105.9	1.5%	105.6	1.6%	673	2.4%
2005	109.4	2.2%	108.3	2.1%	108.2	2.1%	737	3.8%	109.1	2.3%	108.2	2.1%	107.6	1.9%	695	3.2%
2006	111.6	1.9%	110.3	1.9%	110.7	2.3%	755	2.4%	110.9	1.7%	109.8	1.5%	109.2	1.5%	707	1.8%
2007	114.0	2.2%	112.5	1.9%	113.4	2.4%	787	4.2%	112.7	1.6%	111.9	1.8%	111.1	1.7%	737	4.1%
2008	116.7	2.3%	114.8	2.1%	116.2	2.5%	810	2.8%	115.0	2.1%	113.5	1.5%	113.3	2.0%	751	1.9%
2009	117.0	0.3%	115.9	0.9%	117.6	1.2%	823	1.5%	115.7	0.6%	114.1	0.5%	114.4	1.0%	759	1.0%
2010	119.1	1.8%	117.4	1.4%	118.8	1.1%	852	3.6%	117.1	1.2%	115.4	1.2%	115.4	0.9%	784	3.3%
2011	122.6	2.9%	120.4	2.5%	121.7	2.4%	874	2.5%	120.7	3.0%	118.3	2.5%	118.2	2.4%	804	2.5%
2012	124.4	1.5%	122.2	1.5%	123.7	1.7%	895	2.5%	123.3	2.1%	120.5	1.8%	120.3	1.8%	823	2.4%
2013	125.6	0.9%	124.4	1.8%	125.9	1.7%	911	1.8%	124.2	0.7%	123.0	2.1%	122.8	2.0%	832	1.2%
2014	128.0	1.9%	126.9	2.0%	128.7	2.2%	935	2.6%	125.9	1.4%	125.2	1.7%	125.2	2.0%	850	2.0%
2015	129.4	1.1%	128.3	1.1%	130.8	1.7%	952	1.8%	127.2	1.0%	126.7	1.2%	127.1	1.5%	868	2.1%
2016	131.3	1.4%	129.6	1.0%	132.5	1.3%	956	0.4%	128.2	0.7%	127.7	0.8%	128.2	0.9%	878	1.2%
Average Annual Growth Rates																
1982-2016		2.7%		2.7%		2.6%		NA		2.6%		2.6%		2.4%		NA
1997-2016		1.8%		1.8%		1.9%		NA		1.7%		1.7%		1.6%		NA
2002-2016		1.8%		1.7%		1.9%		2.5%		1.7%		1.6%		1.7%		2.3%
Standard Deviations																
1982-2016		1.9%		1.9%		1.6%		NA		2.2%		2.0%		1.7%		NA
1997-2016		0.7%		0.5%		0.5%		NA		0.6%		0.6%		0.5%		NA
2002-2016		0.7%		0.5%		0.5%		0.9%		0.7%		0.5%		0.5%		0.8%

[1] All growth rates are logarithmic.
[2] Consumer price index (Statistics Canada, Table 326-0021)
[3] Gross domestic product implicit price index (Statistics Canada, Table 384-0039).
[4] Average weekly earnings, including overtime, for all employees in current dollars (Statistics Canada, Table 281-0026).

- The IPC for Canada is the inflation measure most familiar to Canadian consumers. This type of inflation measure is the norm in British and Australian MRIs. It is less common in North American MRIs because it places a fairly heavy weight on price-volatile consumer commodities like gasoline, natural gas, and food. These commodities make the IPC^{Canada} more volatile and have much more impact on the budget of a typical consumer than they do on the cost of a typical energy distributor's base rate inputs.[50] On the other hand, the revenue cap index for HQD may apply to *couts de combustibles* such as *diesel leger*, *diesel arctique*, and *mazout*.
- The IPC for Québec ($IPC^{Québec}$) has the drawbacks just noted for the CPI^{Canada} but has the advantage of being specific to the province. It should therefore be more sensitive to local business conditions than IPC^{Canada}.
- Gross domestic product implicit price indexes ("GDPIPIs") track inflation in prices of capital equipment and net exports as well as consumer products. They are periodically updated and are available for Québec as well as Canada. However, the GDPIPI for Québec is released with a considerable lag. In the United States, we noted above that a gross domestic product price index has been preferred over IPCs in MRIs because the impact of price-volatile consumer commodities is watered down. However, in Canada's economy with its sizable reliance on natural resource exports, this stabilizing benefit is offset by the impact of incorporating inflation in commodity exports. The GDPIPIs for final domestic demand ($GDPIPI^{FDD}$) remove the inflation impact of price volatile exports. They are available for Québec as well as Canada.

Table 6 shows that these indexes vary in their volatility, which we measure in the last three rows of the table by the standard deviations of their growth rates. The CPIs for Canada and Québec are more volatile than the corresponding GDPIPIs for final domestic demand. In 2009, for instance, the CPI (all items) for Canada and Québec grew only 0.3% and 0.6%, respectively, while the GDPIPIs for final

[50] Non-seasonal CPIs also have the characteristic of not being revised.

domestic demand in Canada and Québec rose by 1.2% and 1.0%. Average weekly earnings of Québec workers are even more volatile.

The table also shows that trends in Québec inflation tend to be fairly similar to those for Canadian inflation. Please also note that, in Canada and Québec alike, the growth trends in average weekly earnings are more rapid than those for the macroeconomic price indexes. This incentivizes utilities to propose heavier weights on the labor price indexes in the inflation measures of rate and revenue cap indexes.

We conclude that the $IPC^{Québec}$ is a reasonable subindex for HQD's inflation measure if the formule d'indexation applies to fuel costs. The GDPIPI for final domestic demand in Canada merits consideration if the Régie decides to add a price subindex for fuel cost to the inflation measure.

Cost Share Weights

The inflation in an input price index was shown in Section 3.2 to be a cost-weighted average of the growth in price subindexes for various input groups. This inflation measure for HQD will apply to most costs of base rate inputs, including capital costs. The weight on the labor price index in the inflation measure should therefore be the share of non-capitalized labor expenses in the applicable portion of the pro forma total cost of service. Table 7 summarizes precedents for inflation measures in current Canadian MRIs. It can be seen that similarly low labor price weights are used in Ontario inflation measures. Our review of HQD's *revenu requis* for 2016 suggests that a labor price index weight of approximately 19% is appropriate. This is roughly the share of labor in *charges d'exploitation* times the share of *charges d'exploitation* in the applicable total *revenu requis*. The weight assigned to labor would be reduced if pension and benefit expenses are Y factored.

Timing

With respect to timing, we recommend that the *revenu requis* of HQD be escalated on April 1 of the new rate year on the basis of historical inflation for the period ending on December 31st of the prior year. The requisite inflation measures should be available by early March.

DEMANDE DE RENSEIGNEMENTS N° 2 DE LA RÉGIE DE L'ÉNERGIE (LA RÉGIE)
À L'AQCIE-CIFQ
SUR LA DEMANDE RELATIVE AUX TARIFS D'ÉLECTRICITÉ DE L'ANNÉE TARIFAIRE 2018-2019

IMPLANTATION D'UN MÉCANISME DE RÉGLEMENTATION INCITATIVE (MRI)

Facteur d'inflation (I)

1. Références : (i) Pièce B-0177, p. 9;
(ii) Pièce B-0177, p. 13;
(iii) Décision D-2017-043; par. 383;
(iv) Pièce B-0177, p. 16.

Préambule :

(i) « *Bien que l'utilisation de l'IPC Québec, taux global d'inflation, offre l'avantage d'être factuel, non controversé, fiable et simple à calculer, il comporte d'importantes lacunes. Certes, l'IPC Québec est représentatif de l'évolution des prix des biens à la consommation, mais il n'est pas représentatif de l'évolution de l'ensemble des coûts relatifs aux biens et services consommés par le Distributeur maintenant inclus dans la Formule d'indexation déterminée par la Régie.* [...].

Bien que le Distributeur consomme un certain nombre de biens et services composant le panier de consommation des ménages, une majorité des composantes de ce panier ne font pas partie des biens consommés par le Distributeur. A contrario, certains biens acquis par le Distributeur ne se retrouvent pas dans le panier des ménages, comme par exemple, les achats de matériel qui sont capitalisés aux investissements. De plus, les biens qui composent le panier de l'IPC Québec sont calculés aux prix de détail alors que la majorité des achats d'Hydro-Québec se font aux prix de gros.

La composition du panier de consommation des ménages qui sert de base pour mesurer l'évolution des prix des biens et services de l'IPC provient des données de l'Enquête sur les dépenses des ménages (EDM) de Statistique Canada et est disponible au tableau 326-0031.

L'analyse des données de ce tableau permet de constater que plus de 80 % des dépenses des ménages proviennent essentiellement de sept catégories de biens et services, soit : l'alimentation, le logement, le transport (incluant l'essence), les soins de santé et personnels, les loisirs, les produits du tabac et boissons alcooliques et les jeux de hasard.

Autre biais, la consommation de combustible (mazout et essence), qui représente environ 5

% des dépenses des ménages québécois, a un impact important sur les fluctuations de l'IPC. À titre d'exemple, en 2015, l'inflation au Québec a été de 1,1 %, mais la hausse de l'IPC sans l'essence a été de 2,1 %. En 2016, le même phénomène s'est reproduit de sorte que la baisse du prix de l'essence a réduit l'inflation au Québec de près de la moitié sur deux ans.

Partant des constats de la faible représentativité de l'IPC Québec pour l'évolution de l'ensemble des autres coûts relatifs aux acquisitions de biens et services et de l'ajout dans la Formule d'indexation de nouveaux éléments de coûts liés aux actifs, le Distributeur propose le recours à deux indices, l'un pour les coûts liés aux actifs, l'autre pour les coûts des autres biens et services. » [références omises]

(ii) « *Le Distributeur adhère à l'utilisation de la moyenne mobile des trois dernières années pour le facteur d'indexation des salaires. Toutefois, plutôt que de recourir à la variation annuelle de l'indice moyen d'ensemble pour les autres charges, il préconise d'étendre l'utilisation de la moyenne mobile sur trois ans aux deux autres indices composant le Facteur I qui montrent également une certaine volatilité dans le temps. De façon générale, les indices de prix fluctuent autant que les indices de la rémunération, mais vont représenter plus de 80 % du Facteur I, en raison de la pondération des composantes.* » [références omises]

(iii) « *[383] Pour l'ensemble de ces motifs, la Régie détermine que les coûts de combustible doivent être couverts par la Formule d'indexation.* »

(iv) « *De plus, puisque les rubriques pour ces trois catégories de dépenses ne seront plus présentées de façon spécifique dans les revenus requis des années 2, 3 et 4 du MRI, le Distributeur propose de fixer pour la durée du MRI les poids relatifs des trois catégories de dépenses. Ces poids relatifs seront établis formellement en fonction des coûts reconnus pour l'an 1 du MRI, excluant les éléments traités en Facteur Y et en Facteur Z une fois ceux-ci déterminés.* »

Demandes :

1.1 En regard de la décision D-2017-043 de la Régie concernant l'inclusion des coûts de combustible dans la Formule d'indexation (référence (iii)), veuillez commenter la position du Distributeur d'exclure l'IPC-Québec en raison de sa fluctuation attribuable à la volatilité des combustibles (mazout et essence) (référence (i)).

1.2 Veuillez commenter la proposition du Distributeur d'avoir recours à deux indices pour les dépenses autres que la masse salariale, c'est-à-dire un indice pour les coûts liés aux actifs et un autre indice pour les coûts des autres biens et services (référence (i)).

1.3 Veuillez commenter la proposition du Distributeur d'étendre l'utilisation de la moyenne mobile sur l'ensemble des sous-indices (référence (ii)). Notamment, veuillez indiquer si cette pratique s'inscrit dans la tendance observée lors de l'implantation de MRI dans les autres juridictions étudiées par les experts de PEG.

1.4 Veuillez commenter la proposition du Distributeur de fixer, pour la durée du MRI, les poids relatifs des trois catégories de dépenses (référence (iv)).

Réponse de AQCIE-CIFQ / PEG :

1.1 PEG believes that the risk of managing *combustible* used in the *reseaux autonomes* can be reasonably contained by a combination of a high volumetric charge and the choice of an inflation measure that captures fluctuations in *combustible* prices. The $IPC^{Québec}$ and the gross domestic product implicit price index for final domestic demand ("GDPIPIFDD")^{Québec} both contain a substantial weight on the price of gasoline in Québec. The weight in the $IPC^{Québec}$ is currently about 4%.

Attachment Régie-AQCIE-CIFQ 1.1 presents results of alternative indexes of petroleum product prices in Canada. It is evident that the price of gasoline in Québec is highly correlated with the price of diesel fuel in the province but not with the price of heavy fuel oil. Inflation in gasoline and diesel fuel prices in Québec and Canada are similar in the long run but not from year to year. Inflation in Québec and Canada heavy fuel oil prices is much less similar.

1.2 PEG is not opposed to a revenue cap index inflation measure that better reflects inflation in input prices that HQD faces. This is a means of reducing HQD's operating risk which does not weaken its performance incentives. However, the design of a more sophisticated inflation measure can be complex and controversial, and the Régie has not sanctioned extensive empirical research by intervenor witnesses to develop and appraise alternative complex inflation measures. It is also noteworthy that inflation measures that consider trends in labor prices as well as macroeconomic price trends are already on the table. As well, Dr. Lowry has recommended consideration of the GDPIPIFDD for Canada as an alternative to $IPC^{Québec}$ as the inflation measure to address prices of capital and material and service ("M&S") inputs. The GDPIPIFDD is used in price cap indexes in Ontario.

It is nonetheless reasonable to have subindexes that separately address inflation in prices of capital and M&S inputs. However, PEG has concerns about the specific subindexes that HQD proposes for these input categories.

- Under the cost of service approach to accounting which the Régie uses in rate cases, utility plant is valued in historical dollars. The implicit price of capital inputs in this ratemaking system is a complex function of the rate of return on capital and of prices utilities have confronted when acquiring capital in many past years. The trend in this capital price

reflects the trends in the prices of constructing and acquiring assets which are one year, two years, three years, and even forty years old. The average trend in these prices can be fairly different from the trend in a moving average of recent growth in a capital asset price index. Additionally, it is difficult to identify a deflator that is pertinent for HQD. Statistique Canada used to calculate construction cost indexes for power distribution lines and substations, but these were suspended after 2014.

- Attachment Régie-AQCIE-CIFQ 1.2a presents alternative candidates for use as a capital asset price index in the HQD revenue cap index. They include the implicit price index for the gross fixed capital formation of Québec's business sector, a Statistique Canada calculation which has been proposed by HQD. Also included are indexes analogous to HQD's proposed index for Canada and Ontario. Utility industry capital stock deflators are available for Canada and by province which come from the fixed non-residential capital stock work of Statistique Canada. The utility industry includes electric, water, and sewer utilities and natural gas distributors. Our table also includes the electric utility construction price indexes ("EUCPIs") for power distribution lines and substations. Statistique Canada discontinued these indexes in 2014.

  The implicit price index for the gross fixed capital formation of the Québec business sector has the advantage of being more geographically relevant to HQD, but less relevant with respect to power distributor operations. An alternative would be to choose a *national* capital stock deflator for the *utility* industry at the cost of being less geographically relevant. Another alternative would be the capital stock deflators for the utility industry from nearby provinces such as Ontario. Due to the size of HQD relative to the entirety of Québec's utility industry, it would not be appropriate to choose the utilities capital stock deflator for Québec.

  Our table shows that the trend in the utilities capital stock deflator for Canada, Ontario, and Québec have been very similar to the corresponding trends for *all* non-residential capital in the longer run. However, for both Ontario and Québec growth in the capital stock deflator for the utilities sector has been modestly more rapid than for all non-residential capital in the last ten years. It is also notable that the trends in the utilities capital stock deflators in Québec, Ontario, and Canada have been similar. The trend in the implicit price index for Québec business gross fixed capital formation has not been that similar to the trend in the capital stock deflator for Québec utilities.

  It is also constructive to compare the national asset price indexes to the power distribution EUCPI for years in which both were available. Over the 1990-2014 period, the utilities capital stock deflators had trends similar to the EUCPI for distribution. The implicit price index for Québec business gross fixed capital formation did not.

  The $IPC^{Québec}$ and the GDPIPIFDD have also been discussed in this proceeding as inflation measures that would apply to capital cost. Over the full 1990-2016 period considered, the GDPIPIFDD and the $IPC^{Québec}$ both averaged 1.9% growth. This was similar to trend in

the utilities capital stock deflator for Québec. However, the utilities capital stock deflator has grown more rapidly in the last ten years. The long term trends in the GDPIPIFDD, $IPC^{Québec}$, and EUCPI for distribution were also similar. Given the similarity of these trends, it is reasonable to question the value of the extra complexity added by using a capital asset price index.

The standard deviations of the various indexes also merit attention. It can be seen that the variability in the implicit price index for Québec gross fixed capital formation, the implicit utility capital stock deflators, and the EUCPIs was well above those of the $IPC^{Québec}$ or the $GDPIPIFDD^{Canada}$. The variability of HQD's proposed asset price index was in the middle.

- PEG is also concerned with the proposal to use the price index for consumer services to address material and service price inflation. This proposal seems self-serving since services are more labor-intensive products than materials so that their prices tend to rise more rapidly. Attachment Régie-AQCIE-CIFQ 1.2b illustrates this point and provides the Régie with some useful information on material and service price inflation. As well, it is not clear how similar the trend in prices of consumer services such as restaurants is to the trends in prices of services utilities purchase.

1.3 The use of moving averages for the inflation measures of attrition relief mechanisms is not common in PEG's experience. PEG is aware of only one precedent. This was the first PBR plan for EPCOR in Alberta (2002-2005). EPCOR's inflation measure was a weighted average of the CPI for Alberta and a five-year rolling average of the industrial product price index for industrial electrical equipment. The three-year moving average would smooth revenue growth but not clearly produce a better input price adjustment.

1.4 When the rate or revenue cap index of an MRI has a complex inflation measure, the weights for the inflation subindexes typically are fixed for the duration of an MRI. PEG supports the use of fixed weights in HQD's inflation measure.

Facteur X

2. Références : (i) Pièce B-0177, p. 18;
(ii) Pièce B-0177, p. 21;
(iii) Pièce B-0178, p. 22;
(iv) Pièce C-AHQ-ARQ-0013, p. 16;
(v) Pièce C-FCEI-0016, p. 15;
(vi) Pièce C-SÉ-0019, p. vii.

Préambule :

(i) Le Distributeur indique que « *en regard de l'efficience déjà réalisée par le Distributeur*