RÉPONSES À LA DEMANDE DE RENSEIGNEMENTS N^O^ 5 DE LA RÉGIE DE L'ÉNERGIE (LA RÉGIE) RELATIVE À LA FIXATION DE TAUX DE RENDEMENT ET DE STRUCTURE DE CAPITAL – PHASE 2 ADRESSÉE AU DR BENTE VILLADSEN

1. Références : (i) Pièce B-0143, p. 103, R-18.3;
(ii) Dossier R-4189-2022, pièce B-0002, p. 7.

Préambule :

(i) « *As discussed in Section VIII B of Dr. Villadsen's Direct Testimony (Exhibit EGI-1, B-0015), the ROE set forth in this proceeding for Intragaz is expected to be in place for a 10-year rate period, which creates risks that capital markets and business risk conditions may change and the authorized ROE will no longer reflect the return required by investors. The Iowa Utilities Board faced a similar challenge when issuing the ROE for wind energy assets, as referenced in (i). In those proceeding, the Iowa Utility Board set the ROE 125 basis higher than the average allowed ROE for integrated electric utilities. As discussed in the response to 18.1, the Iowa Code permits the Iowa Utility Board to use these advance rating making principles to enable the generation of electric generation and transmission assets. It is Dr. Villadsen's understanding that Régie has authority to issue a similar adjustment to Intragaz' ROE to address the risks associated with a 10-year rate period* ». [nous soulignons]

(ii) « *AUTORISER Intragaz à mettre à jour, lors de la 6ème année de la période tarifaire s'échelonnant du 1er mai 2023 au 30 avril 2033, les dépenses d'exploitation de nature récurrente, ainsi que les taux d'indexation applicables à ces dépenses, pour les cinq (5) dernières années de cette période tarifaire, le tout selon les modalités détaillées à la pièce Intragaz-1, Document 1;*

APPROUVER la création d'un cavalier tarifaire ainsi que son entrée en vigueur à compter du 1er mai 2028, afin de refléter la mise à jour des dépenses d'exploitation de nature récurrente pour les cinq (5) dernières années de cette période tarifaire ».

Demande :

1.1 Sous l'hypothèse que la Régie approuvait la demande d'Intragaz décrite en (ii) :

1.1.1 veuillez commenter sur les risques d'affaires et financiers d'Intragaz sur l'horizon s'échelonnant du 1er mai 2023 au 30 avril 2033.

Réponse :

First, Dr. Villadsen wants to clarify that impacts of a 10-year rate period on business risks and on financial risks are separate and distinct matters. She has no comments on Intragaz' business risks over the 1 May 2023 to 30 April 2033 horizon, but refers

the Régie to Dr. Brown's discussion of the business risk of Intragaz; B-0027, pp. 30-32. Dr. Brown's Q/A 52 specifically addresses the impact of a 10-year rate period on regulatory lag. She also wants to clarify that the risk of forecasting 10-year recurring operating expenses, which Dr. Brown addresses in his Direct Testimony, has no direct bearing on her return on equity or capital structure recommendation for Intragaz. Dr. Villadsen's return on equity recommendation accounts for the financial risks faced by Intragaz for having a set return on equity for the 10-year rate period.

Fixing Intragaz' rates for a 10 year period (with the exception of an adjustment for changes in O&M in year 6) implies that the authorized ROE determined in this proceeding will apply to Intragaz for ten years. Énergir and Gazifère will have the opportunity to request a change in authorized ROE during this period based on evolving conditions, while Intragaz will not. This creates additional financial risk for Intragaz that Énergir and Gazifère do not face, as financial and economic conditions may change over the period. As discussed in Sections V and VI of Dr. Villadsen's Direct Testimony, economic indicators such as interest rates, yield spreads, risk premiums, inflation, GDP and utility growth rates affect the returns required by Intragaz' debt and equity investors. The ROE set forth in this proceeding is expected to be in place for a 10-year rate period. During this 10-year period, financial and economic conditions will undoubtedly change. Dr. Villadsen cannot predict on how these changes will materialize over that period,[1] but the fact that there will be changes creates additional risk for Intragaz investors as there will be an added lag in Intragaz' ability to take such changes into account. Simply put, Intragaz' investors will face a lag in the ability to have the cost of capital reflect market conditions. In Section VIII B of Dr. Villadsen's Direct Testimony, she compares the yield spread on long- and short-duration bonds that match the 10-year rate horizon. Specifically, comparing the maturity premium on 10-year and 2-year Government of Canada and Canadian utility bonds indicates a premium of 100 to 140 basis points for the longer horizon, which she used to determine the maximum size of a premium. Lastly, should the Régie decide to go the route of a formula ROE or indexing Intragaz's ROE to Énergir's, the maturity premium would no longer be required because Intragaz' ROE would evolve with market conditions.

1.1.2 en vous référant à (i), veuillez commenter sur la pertinence d'approuver une bonification du taux de rendement d'Intragaz pour tenir compte de ses risques d'affaires et financiers sur l'horizon 2023 à 2033.

[1] As an example of how economic and financial market conditions can change, please see Section V of Dr. Villadsen's Direct Testimony and her response to Request 10.1 in Régie DDR 3, which discuss how conditions have most recently changed.

Réponse :

As discussed in (i) and Section VIII B of Dr. Villadsen's Direct Testimony, Intragaz's return on equity set forth in this proceeding is expected to be in effect for a 10-year rate period. This creates additional risk for Intragaz investors that Énergir and Gazifère investors do not face. Therefore, Dr. Villadsen finds it appropriate and recommends that the Régie add a maturity premium to the authorized benchmark ROE of 50 basis points. As discussed above, Dr. Villadsen assessed the premium bond investors require for holding bonds for longer time and also discusses a similar adjustment authorized by the Iowa Utilities Board for two regulated entities where the authorized ROEs were set for the entire economic life of the regulated assets.

DCF

2. Références : (i) Pièce B-0015, p. 110;
(ii) Pièce B-0193, p. 34, R-11.8;
(iii) Roger A. Morin, *Regulatory Finance – Utilities' Cost of Capital*, Public Utilities Report, Inc., 1994, p. 198;
(iv) Pièce B-0015, Tableau BV-5.6 (*Panel B: Multi-Stage DCF*).

Préambule :

(i) « *The dividend forecasts used in my single- and multi-stage DCF models are determined starting from the last recorded dividend payments (as reported by Bloomberg) prior to the date of my analysis. This dividend is grown at the forecasted growth rate (compounded quarterly) to estimate the expected future dividend inputs (D1, etc….) required by the DCF models* ». [nous soulignons]

(ii) « *Dr. Villadsen observes that the utilities in her proxy samples generally increase dividends on an annual basis, although some utilities will increase dividends more frequently.*

[…] ».

(iii) « *The difference in the cost of capital estimate between the quarterly and annual model can be substantial.* »

(iv) «

Schedule No. BV-5.6

DCF Cost of Equity of the US Sample Gas and Water

Panel B: Multi-Stage DCF - Using TD Bank Forecast, June 2021 as the Perpetual Rate

Company	Stock Price	Most Recent Dividend	Combined Long-Term Growth Rate	Growth Rate: Year 6	Growth Rate: Year 7	Growth Rate: Year 8	Growth Rate: Year 9	Growth Rate: Year 10	GDP Long-Term Growth Rate	DCF Cost of Equity
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]
Amer. States Water	$81.24	$0.34	5.4%	5.2%	4.9%	4.7%	4.5%	4.2%	4.0%	5.9%
Amer. Water Works	$158.32	$0.60	7.6%	7.0%	6.4%	5.8%	5.2%	4.6%	4.0%	6.0%
Artesian Res Corp	$38.30	$0.26	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	6.9%
Atmos Energy	$99.09	$0.63	6.9%	6.4%	6.0%	5.5%	5.0%	4.5%	4.0%	7.2%
California Water	$57.09	$0.23	9.5%	8.6%	7.7%	6.7%	5.8%	4.9%	4.0%	6.4%
Chesapeake Utilities	$120.29	$0.48	6.3%	5.9%	5.5%	5.1%	4.8%	4.4%	4.0%	5.9%
Essential Utilities	$47.34	$0.25	5.7%	5.4%	5.1%	4.8%	4.6%	4.3%	4.0%	6.5%
Global Water Resources Inc	$16.90	$0.02	15.0%	13.2%	11.3%	9.5%	7.7%	5.8%	4.0%	5.3%
Middlesex Water	$84.66	$0.27	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	5.3%
New Jersey Resources	$41.77	$0.33	5.2%	5.0%	4.8%	4.6%	4.4%	4.2%	4.0%	7.6%
NiSource Inc.	$25.35	$0.22	8.1%	7.4%	6.7%	6.0%	5.4%	4.7%	4.0%	8.7%
Northwest Natural	$53.58	$0.48	4.4%	4.3%	4.3%	4.2%	4.1%	4.1%	4.0%	7.9%
ONE Gas Inc.	$75.93	$0.58	6.1%	5.7%	5.4%	5.0%	4.7%	4.3%	4.0%	7.7%
SJW Group	$64.70	$0.34	11.3%	10.0%	8.8%	7.6%	6.4%	5.2%	4.0%	7.5%
South Jersey Inds.	$26.83	$0.30	7.7%	7.1%	6.5%	5.9%	5.2%	4.6%	4.0%	10.0%
Southwest Gas	$65.32	$0.60	6.8%	6.3%	5.9%	5.4%	4.9%	4.5%	4.0%	8.6%
Spire Inc.	$73.61	$0.65	4.9%	4.7%	4.6%	4.4%	4.3%	4.1%	4.0%	7.9%

».

Demandes :

2.1 En vous référant à (i), (ii) et (iii), veuillez fournir les raisons pour lesquelles les estimations de l'AFM du Dr. Villadsen reposent sur des dividendes composés trimestriellement.

Réponse :

The Discounted Cash Flow Model (DCF) is premised on the stream of cash flows distributed by a company to equity investors. One way that companies can distribute cash flows to investors is through dividends. Typically, utilities pay dividends to investors each quarter. As discussed in Reference (ii), utilities typically increase dividend quantities on an annual basis and each quarterly dividend within a given year is of the same size. A quarterly dividend model is a better approximation of the frequency that regulated entities return earnings to equity investors. Dr. Villadsen uses growth rates published by Value Line and IBES, which are annual growth rates. She adjusts the growth rates estimates to be on a quarterly basis, consistent with the quarterly dividends used in her model. Using a quarterly compounding DCF model is more consistent with the theory underlying the DCF Model and the frequency of dividends payments.

2.2 À l'aide des renseignements de la référence (iv), la Régie produit une estimation du coût du capital selon un AFM à trois niveaux (*multi-stage DCF*) reposant sur des dividendes composés annuellement.

	Coût du capital selon AFM à 3 niveaux		
Entreprise	Dividendes composés trimestriellement [1]	Dividendes composés annuellement [2]	Écart = [2] - [1]
Amer. States Water	5,9%	5,4%	-0,5%
Amer. Water Works	6,0%	5,3%	-0,7%
Artesian Res Corp	6,9%	6,2%	-0,6%
Atmos Energy	7,2%	6,2%	-1,0%
California Water	6,4%	5,5%	-0,9%
Chesapeake Utilities	5,9%	5,4%	-0,6%
Essential Utilities	6,5%	5,8%	-0,7%
Global Water Resources Inc	5,3%	4,6%	-0,6%
Middlesex Water	5,3%	5,0%	-0,3%
New Jersey Resources	7,6%	6,7%	-0,9%
NiSource Inc.	8,7%	7,2%	-1,5%
Northwest Natural	7,9%	7,0%	-0,9%
ONE Gas Inc.	7,7%	6,6%	-1,0%
SJW Group	7,5%	6,0%	-1,5%
South Jersey Inds.	10,0%	8,1%	-1,9%
Southwest Gas	8,6%	7,2%	-1,3%
Spire Inc.	7,9%	7,0%	-0,9%
« *Gas Sample* »	**7,9%**	**6,8%**	**-1,1%**
« *Water Sample* »	**6,2%**	**5,5%**	**-0,7%**

2.2.1 Veuillez valider les résultats du tableau ci-dessus et au besoin, veuillez y apporter les corrections nécessaires en fournissant le détail des calculs.

Réponse :

For purposes of Request Series 2.2, Dr. Villadsen assumes that Régie has performed the calculations correctly.

2.2.2 Veuillez commenter les écarts imputables aux dividendes composés annuellement et trimestriellement. À la lumière de ces résultats, veuillez également commenter sur l'approche des dividendes composées la plus appropriée aux fins de l'AFM.

Réponse :

Please see response to Request 2.1 above. Since utilities typically pay dividends on a quarterly basis, a quarterly compounding DCF model is more appropriate than an annual dividend payment. All else equal, an annual DCF model will understate the cost of equity, as illustrated in the Régie's calculation in Request 2.2.1. This is because an annual DCF model will delay the payment of the dividend until the end of the annual period, which is inconsistent with how utilities pay dividends. For example, under an annual DCF approach, an investor would not receive a utility's first quarter dividend until the end of the year. All equal, the investor is worse off in this situation due to the time value of money. In summary, a quarterly DCF better reflects how utilities return cash flows to equity investors and it does not downwardly bias the return on equity estimates by unreasonably delaying payments to investors.