

1 **Nova Scotia Energy Board**

2
3
4
5
6 **M12394 – NSP Maritime Link**

7
8
9 **(An Application by NSP Maritime Link Incorporated)**

10
11
12
13 **Responses to Information Requests from the**
14 **Industrial Group**
15 **from**
16 **Dr. Sean Cleary, CFA**
17 **Professor of Finance**

1 **Request IR-1:**

2 **Reference:** **Page 5, lines 25-27.**

3 **Preamble:** **Dr. Cleary's ROE recommendation is based on an estimate of the appropriate allowed**
4 **ROE for NSPI and assumes that the ROE for NSPML and NSPI should continue to be tied.**

5 (a) What is the basis for the assumption that NSPML should continue to be afforded
6 the same allowed ROE as NSPI?

7 (b) Are there particular facts or evidence on which Dr. Cleary relied to make this
8 assumption? Please explain.

9 (c) Was any consideration given to the fact that the Maritime Link is beyond the
10 construction phase and is now in its operational phase, in relation to this
11 assumption?

12 (d) Is there a policy or economic principle that indicates that tying these utilities'
13 ROEs together is more reasonable or in the best interest of the ratepayers? Please
14 explain.

15 (e) Has Dr. Cleary analyzed and compared the business risk and financial risk profiles
16 for NSPML and NSPI separately? If so, please provide. If not, why not?

17 **Response:**

18 (a) Based on his reading of the Application materials and additional materials, Dr. Cleary concluded that
19 it is appropriate to continue to apply the allowed ROE for NS Power to NSPML, since the total risk
20 profiles for the two utilities are similar, and also as a pragmatic matter. As mentioned in his
21 evidence, NSPML faces some unique operational risks that are not faced by NS Power; however, this
22 risk is offset to a certain degree by its lack of generational assets, and even more so by the existence
23 of the low-risk debt used to finance the Maritime Link project cost of \$1.7 billion issued by the
24 Maritime Link Financing Trust, which is guaranteed by the Government of Canada that lowers
25 NSPML's risk. As a result, I also recommended that NSMPL be awarded the same equity ratio (ER)
26 as that determined for NS Power for its sustaining capital.

27 Using NS Power's cost of equity estimate (which is determined based on analyses of market-
28 based data for NS Power and for reasonable comparator Canadian utilities) to determine the
29 allowed ROE for NS Power and, also for NSMPL represents a logical approach since the two

1 utilities are of comparable risk. This is because NS Power and NSMPL will face similar local
2 and global economic and capital market conditions at any point in time, and they face the same
3 level of regulatory risk.

4 In contrast, Concentric begins its analysis by making reference to the allowed ROEs for four
5 US-based subsea cable projects that operate in different economic regions than NSMPL, and
6 which operate in U.S.-based regulatory jurisdictions that are known to vary significantly from
7 Canadian regulatory jurisdictions. These utilities appear to have very little in common with
8 NSMPL except for the fact they are subsea cable projects. Concentric then proceeds to
9 reference the allowed ROEs for numerous U.S. electric transmission regulated utilities beyond
10 these four subsea cable utilities, relying heavily on the main argument that since allowed ROEs
11 and ERs in mainly U.S. jurisdictions are higher than those for NSPML, the allowed ROE and
12 ER need to be increased. Finally, Concentric also constructs a proxy group consisting of three
13 U.S. utilities and two Canadian utilities that it uses to estimate NSPML's cost of equity after
14 arbitrarily adding 0.75-1.0% to its already inflated estimate of 9.34%. Concentric does not
15 provide many details as to how this group was constructed, other than stating that they are
16 "publicly-traded, regulated North American electric utilities that are transmission and
17 distribution companies," with "limited or no generation assets," and that they all have
18 investment grade debt ratings.

19 I further note that allocating NS Power's allowed ROE to NSMPL represents a continuation
20 of the existing practice, which is a pragmatic one. In particular, this practice precludes having
21 to hold separate proceedings every few years to estimate the allowed ROE and ER for NS
22 Power, and, also holding similar proceedings for NSPML through time. Presumably, these
23 separate proceedings would focus on analyses and discussions of a lot of the same economic
24 and market information. A similar approach is used in other jurisdictions with multiple
25 regulated utilities, such as in Alberta and Ontario, rather than holding numerous rate
26 proceedings for each of the individual utilities. The overall approach used in those jurisdictions
27 during cost of capital proceedings is to assess current market, economic and operating
28 conditions to estimate a "generic" ROE that reflects these conditions. Having established a
29 base ROE, it is then common in these jurisdictions to adjust the allowed ERs for individual
30 utilities (from a base ER) to reflect the specific risk profile of each utility; although the generic
31 allowed ROE can also be adjusted if deemed appropriate.

32 (b) Please refer to the response to part (a).

(c) It was implicitly taken into consideration, as it makes it even more reasonable to compare NSMPL to NS Power for the purposes of estimating the allowed ROE and ER for NSMPL.

(d) Dr. Cleary is not aware of any specific principle or economic policy that suggests this should always be the case. However, as discussed in the response to part (a), this approach is based on logic and his professional judgment. It also represents a pragmatic approach that has similarities to the approaches used in other jurisdictions with multiple regulated utilities.

(e) As discussed in response to part (a), based on his reading of the Application materials and additional materials, Dr. Cleary concluded that the total risk profiles for the two utilities are similar. Therefore, it is reasonable to continue to allocate NSMPL the same allowed ROE as NS Power, and to use the allowed ER for NS Power for NSMPL's sustaining capital. In particular, NSPML faces some unique operational risks that are not faced by NS Power; however, this risk is offset to a certain degree by its lack of generational assets, and even more so by the existence of the low-risk debt used to finance the Maritime Link project cost of \$1.7 billion issued by the Maritime Link Financing Trust, which is guaranteed by the Government of Canada that lowers NSPML's risk.

Based on this approach, Dr. Cleary provided his assessment of the business, financial and total risk profile for NS Power in Section 6 of his evidence. That analysis led Dr. Cleary to conclude that NS Power is a low-risk Canadian utility; however, it is slightly riskier than the average A-rated Canadian operating utility. On that basis, he recommended that NS Power's currently allowed (and requested) 40% ER is appropriate, even though it is above his previous recommendations for Alberta T&D utilities and two large T&D Ontario utilities.

Request IR-2:

Reference: Page 6, lines 16-22.

(a) Can you expand on the specific distinguishing factors between the current Nova Scotia and US markets?

(b) Please elaborate on why the US jurisdictions use generally higher ROEs and equity ratios, and/or why they have significantly higher business risk (noted at page 10, lines 18-22 and Appendix B)?

Response:

(a) The empirical analysis and discussion in Appendix B of Dr. Cleary's evidence shows clearly that U.S. utilities possess greater risk than Canadian utilities, including NS Power. This is hardly

1 surprising given that U.S. utility samples are commonly comprised of holding companies with
2 various ownership structures and a variety of exposures to risks to which Canadian utilities are not
3 exposed – at least not to the same extent.

4 Another factor contributing to the higher risk for U.S. utilities is the various regulatory
5 environments they operate in, which are generally less supportive than Canadian regulatory
6 regimes. This can be seen in the following statements from the Alberta Utilities Commission (AUC)
7 during previous Proceedings (bold added for emphasis):¹

8 156. The Commission agrees with Mr. Coyne, Dr. Vander Weide and the other proponents
9 in the proceeding who suggest that the regulatory framework and the regulatory
10 philosophies of both the U.S. and Canada are similar. **The Commission agrees, however**
11 **with Dr. Safir that there have been some significant differences in regulatory policy**
12 **between the U.S. and Canada which have created additional regulatory risk for**
13 **American utilities.** The Commission further agrees that disallowances in the U.S. have
14 had significant impacts on investor confidence and risk perceptions that once such events
15 have occurred they will have ongoing effects on future investor expectations. ...

16 168. While U.S. utilities have benefited from the application of some of the attributes of
17 Canadian regulation identified by Dr. Booth above and while the differences in regulatory
18 practice between the U.S. and Canada may be narrower than they may have been at the
19 time that the EUB last considered this matter, **on the whole the Commission considers**
20 **based on the evidence before it that these attributes are more pervasive in Canada**
21 **and continue to suggest that Canadian utilities enjoy a more supportive regulatory**
22 **environment and have less regulatory risk than their American counterparts.** Further,
23 the Commission considers that **the reliance on historical test years and the DCF**
24 **methodology by the majority of U.S. regulators are further reasons for higher**
25 **awarded ROEs in the United States. These conclusions are affirmed by the**
26 **Commission's analysis with respect to credit metrics and bond ratings discussed**
27 **below.**

28 Appendix C of Dr. Cleary's evidence provides further support for this fact, showing that despite
29 having higher ERs, U.S. utilities have greater betas than their Canadian counterparts.

30 (b) Dr. Cleary cannot state specifically the reasons why there are higher awarded ROEs and ERs in the
31 U.S. than in Canada. He would note however, that this is consistent with his evidence provided in
32 Appendix B and Appendix C that demonstrates that U.S. utilities are riskier than Canadian utilities.

¹ Decision 2009-216 - 2009 Generic Cost of Capital, pages 41-46, paras.156, 168.

1 For example, consider the following conclusion reached by the AUC, when comparing the
2 regulatory risk for Alberta utilities versus U.S utilities (bold added for emphasis):²

3 190. In the sections above the Commission has reviewed the evidence relating to the
4 comparability of risk and the use of U.S. data on allowed returns. For the reasons stated
5 above, the Commission has determined to exclude return information on FERC regulated
6 utilities. With respect to U.S. data on allowed returns for natural gas and electric LDCs and
7 other state regulated utilities, the Commission finds, based on the evidence and analysis
8 referred to above, that the regulatory risk faced by these U.S. utilities in general remain
9 materially higher than the regulatory risk of Alberta utilities. **As a consequence, the**
10 **returns awarded by U.S. regulators for U.S. LDCs would be expected to reflect this**
11 **materially higher level of risk** leading the Commission to conclude that U.S. allowed
12 returns should not be used in determining a fair return for Alberta utilities.

13 Dr. Cleary would further note that the “downward stickiness” in Canadian awarded ROEs in
14 response to declining capital costs that he discusses in Section 5.1 of his evidence is even more
15 pronounced in the U.S., as documented in studies by Azgad-Tromer and Talley (2017),³ and by
16 Sikes (2022).⁴ This would further contribute to the higher ROEs and ERs in the U.S. relative to
17 Canada.

18 **Request IR-3:**

19 **Reference: Page 7, lines 17-23.**

20 **Preamble: Dr. Cleary notes the differences between the proxy groups used by Concentric within**
21 **this proceeding, along with evidence previously filed with respect to NSPI’s 2025 GRA proceeding,**
22 **and evidence filed before the Ontario Energy Board in 2024.**

23 (a) Please explain whether any of these proxy groups used by Concentric would have
24 been an appropriate proxy group to use in this matter for NSPML (if its ROE were
25 determined separately).

26 (b) Is it ever appropriate (in this or other NSPI rate applications) to integrate

² Decision 2009-216 - 2009 Generic Cost of Capital, page 54, para.190.

³ Source: S. Azgad-Tromer and E. Talley, 2017, “The Utility of Finance,” Working Paper, Columbia University
(https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2994314).

⁴ Source: Sikes, Thomas, M. S. January 2022, “Regulated Inequity – How regulators’ acceptance of flawed financial analysis inflates the profit of public utility companies in the United States.”

comparative US data? Please explain.

Response:

(a) Dr. Cleary would suggest that it would be preferable for Concentric to employ greater consistency in choosing its proxy groups. In its NSMPL evidence it includes only two Canadian utilities and does not include two of the Canadian utilities it included in its OEB evidence (i.e., Emera Corp. and Fortis Inc.). This is important given that there are a limited number of publicly traded Canadian utilities to choose from in forming an appropriate Canadian proxy group, and as discussed in response to IR #2, Dr. Cleary does not consider U.S. utilities as appropriate comparators to Canadian utilities, which is consistent with his evidence provided in Appendix B and Appendix C that demonstrates that U.S. utilities are riskier than Canadian utilities. While Dr. Cleary does not consider U.S. utilities as appropriate comparators, if Concentric decides to use them, then it would be preferable to use a larger sample of U.S. utilities, since there are many more to choose from than Canadian utilities. For example, during the 2024 Alberta GCOC Proceedings “reasonable comparable utilities” were determined based on the results of a lengthy process involving party submissions, a technical conference, and ensuing follow up on remaining issues (in which Concentric participated in).⁵ This process resulted in determining the appropriate proxy groups would consist of the five Canadian utilities included in Dr. Cleary’s Canadian proxy group, and the 28 U.S. utilities he uses in his U.S. proxy group (which he includes in his evidence for information purposes only, even though he does not consider the U.S. sample results in his final cost of equity estimates due to concerns about the comparability of U.S. utilities). Dr. Cleary notes that Concentric included 15 U.S. utilities in its 2024 OEB evidence but only three in its 2025 NSMPL proxy group. Without commenting on the inclusion and exclusion of each individual utility, Dr. Cleary would note that Concentric’s OEB proxy group includes two of the three U.S. utilities included in its NSMPL group, includes four utilities *not* included in the group of 28 U.S. utilities determined to be reasonable comparators in the 2024 Alberta GCOC Proceedings, does include 11 of those 28 U.S. utilities, but *excludes* another 17 of them. This demonstrates considerable inconsistency in proxy group selection by Concentric over a relatively short time period.

⁵ As noted in the November 10, 2022 Alberta Utilities Commission (AUC) memorandum to all parties, titled “Proceeding 27084, Determination of the Cost-of Capital Parameters in 2024 and Beyond: Appendix A – Finalized screening criteria,” (27084-X0256 2022-11-10 Appendix A - Finalized screening criteria).

(b) As discussed in response to IR #2, Dr. Cleary does not consider U.S. utilities as appropriate comparators to Canadian utilities, which is consistent with his evidence provided in Appendix B and Appendix C that demonstrates that U.S. utilities are riskier than Canadian utilities. Therefore, he does not consider the results from his U.S. Proxy Group, but includes them in his evidence for information purposes only. If the Board decides to consider evidence that is based on U.S. utilities, the results should be viewed with the recognition that these utilities have greater risk than Canadian utilities.

Request IR-4:

Reference: Page 11, lines 15-17.

A large source of the higher historical MRP estimates is due to Concentric's use of "income only returns" for bonds to determine MRPs rather than "total returns," which is standard practice for finance professionals.

(a) Please provide support for the statement that the use of "total returns" is the standard practice to determine the Expected Return on the Market (MRP).

(b) Is there any significance of the reference to "finance professionals" i.e. does the standard practice differ for others, including in utility regulatory proceedings?

Response:

(a) Using the total bond return to determine market risk premiums (MRPs) is the default in widely cited academic and finance practitioner research, such as the widely cited study by Dimson et al. (2016), which is the source for Figure 11 of Dr. Cleary's evidence.⁶ It is also standard practice in surveys by finance researchers, including in the widely cited survey by Fernandez et al. (2025), which is the source for Figure 12 of Dr. Cleary's evidence.⁷

Total returns are the default since the actual return that is earned on a bond is comprised not only of the "interest return" (i.e., the amount of interest paid on a bond divided by the purchase price), but also a "capital gain (or loss) return" component. This is because bond prices change every period based on changes in market-determined yields (that occur continuously and

⁶ Source: Dimson, E., Marsh, P. and M. Staunton, "Long-Term Asset Returns," in *Financial Market History*, CFA Institute Research Foundation, December 2016.

⁷ Source: "Survey: Market Risk Premium and Risk-Free Rate used for 54 countries in 2025," 2025 Fernandez et. al.

through time). In addition, bond prices converge to their face value as they approach the maturity date of the bonds, since this is the amount that will be repaid on them at that date. Therefore, the actual return earned on a bond will reflect both components over a given period. In short, considering only the income return on a bond **neglects an important component of the return on bonds.**

Consider for example the data provided in in Attachment J that was used to construct Table 6 of Dr. Cleary's evidence that depicts the long-term returns on Canadian stocks and bonds. Over the 1938-2024 period the average annual total return on Government of Canada bonds was 5.9%. However, the annual total bond return was actually negative in 21 of 87 years due to capital loss yields (caused by bond price declines in response to increases in market bond yields in those years). This would have occurred even though the quoted market yields, the coupon rates or the income yields on the bonds would never have been negative at any time over the period. On the flip side, in 14 of the 87 years, the total annual bond return exceeded 15%, which would have been largely driven by double digit capital gains yields (as bond prices increased in response to market yield declines in those years).

The expected "capital gain (or loss)" component on any bond is "built" into the market yield that is quoted on a bond at any point in time, since this reported market yield is the expected **yield to maturity** if the bond is held to the maturity date. Importantly, these quoted market yields include the government bond yields that are used as a proxy for the risk-free rate (RF) in the CAPM, and utility bond yields that are used to estimate utilities' cost of debt.

For example, consider the following government bond price and yield quotations from RBC as of July 5, 2025, where the prices are quoted based on a face value of \$100:⁸

Issuer	Coupon	Maturity	Offer Price	Yield to Maturity
Ontario	3.60	08-Mar-28	102.43	2.644%
Canada	2.25	01-Jun-29	98.4	2.683%

The Ontario bond that is selling above face value and matures in 2028, would have an income yield equal to the coupon of 3.60 divided by the price of 102.43, or 3.51%, which is clearly much higher than the quoted market yield of 2.644%. The Canada bond selling below its face value that matures in 2029, would have an income yield equal to the coupon of 2.25 divided by the price of 98.4, or 2.29%, which is below the quoted market yield of 2.683%.

⁸ Source: <https://www.rbcdirectinvesting.com/pricing/gic-bond-rates.html>, November 4, 2025.

1 It is informative to recognize that Concentric's purpose for estimating the MRP is to use it in the
2 CAPM to estimate the required return on equity (Ke) for NSMPL, the equation for which is presented
3 below:

4
$$K_e = R_F + (E_{R_m} - R_F) \text{ Beta, or}$$

5
$$K_e = R_F + (\text{MRP}) \text{ Beta}$$

6 Where,

7 K_e = the required rate of return on common equity

8 R_F = the risk-free rate

9 $E_{R_m} - R_F = \text{MRP}$ (i.e., the expected market return (E_{R_m}) minus R_F)

10 Beta = the measure of market risk of a security

11 It is important to note that the MRP estimate as used in the CAPM equals the expected return
12 on the overall stock market minus R_F that is proxied as the market yield (or expected yield in
13 Concentric's case) on long-term government bonds. As discussed above, this R_F estimate will
14 equal the market yield (or yield to maturity) on the government bonds and does **NOT** equal
15 the income yield. As a result, Concentric's approach to estimating MRPs based on income
16 yields is **flawed by design**.

- 17 (b) Dr. Cleary was referring to finance professionals in the sense of academics or practitioners
18 working in the field that would be involved in conducting studies or other forms of research
19 regarding MRPs that would be used by themselves as well as others (in the case of published
20 non-proprietary documents). Regulatory proceedings would represent one important example
21 of an audience that would use such evidence to inform their decisions.

22 **Request IR-5:**

23 **Reference: Page 12, lines 12-14.**

24 *Importantly, using allowed ROEs in the U.S. does not provide market-based evidence, does*
25 *not account for issues such as jurisdiction-specific legislations and case law, nor do they*
26 *reflect utility-specific business risks affecting Canadian utilities.*

27 (a) Are there enough Canadian utilities to comprise an adequate proxy group?

28 (b) Does excluding US entities create a risk that too few comparators will be available
29 to provide sufficient context to properly evaluate this NSPML application, or other
30 NSPI rate applications?

31 (c) What, if any, adjustments could be or should be applied to US-based data to make

1 it appropriate for use in this application?

2 **Response:**

3 (a) Clearly it would be preferable to have a larger sample, but Dr. Cleary believes the proxy
4 group is adequate. He further notes that Concentric's North American proxy group consists
5 of only five utilities (including three U.S. ones that are not good comparators). Dr. Cleary
6 maintains that it is preferable to analyze a group of five "apples" (even if not all identical
7 apples) than to compare to a larger group of "oranges" (i.e., U.S. utilities). For one thing,
8 Canadian utilities would generally face similar domestic economic and capital market
9 conditions at any point in time, and similar regulatory support.

10 (b) Please refer to the response to part (a).

11 (c) Dr. Cleary's evidence provided in Appendix B and Appendix C demonstrates that U.S.
12 utilities are riskier than Canadian utilities. Therefore, he does not consider the results from
13 his U.S. Proxy Group, but includes them in his evidence for information purposes only.
14 However, if the NSEB decides to consider evidence that is based on U.S. utilities, the
15 results should be viewed with the recognition that these utilities have greater risk than
16 Canadian utilities and make adjustments to **lower** the ROE and equity ratio estimates as
17 necessary.

18 For example, with respect to the CAPM estimates that are based on U.S. utilities, the
19 expected MRPs for Canada and the U.S. would be similar (if estimated properly) according
20 to Dr. Cleary's analysis in Section 5.2.3. However, the overall CAPM cost of equity
21 estimates would be upward biased due to: (1) the higher betas for U.S. utilities noted in
22 Appendix C (reflecting their higher risk); and, (2) the current higher level of interest rates
23 in the U.S. versus Canada – which would lead to a higher risk-free rate (RF) estimate (and
24 also one that is not attainable for Canadian investors without facing foreign exchange risk).
25 Specifically, as of November 4, 2025 the 30-year U.S. Treasury bond yield was 4.67%,
26 1.09% higher than the 30-year Canada yield of 3.58% at the time – creating an **immediate**
27 **1.1% upward bias** in a U.S.-based CAPM estimate.

28 Dr. Cleary would note that his dividend discount model (DDM) cost of equity estimate for
29 the Canadian sample in his current evidence of 7.91% is 0.38% above his U.S. DDM
30 estimate of 7.53%, but this will not always be the case. As a result, he relied solely on his
31 Canadian DDM cost of equity estimate, which he judges to be the appropriate estimate.

1 **Request IR-6:**

2 **Reference: Page 20, Section 4.2.2 Canada's Outlook.**

3 Has your analysis of Canada's outlook changed since the date of your evidence in light of changing
4 international dynamics and President Trump's recent cessation of trade talks with Canada? Please explain.

5 **Response:**

6 There was no trade agreement with the U.S. in place at the time that Dr. Cleary conducted his
7 original analysis, and Dr. Cleary as well as many forecasters such as the Bank of Canada, did not
8 assign a high weight to such an agreement coming into existence in the short term. Dr. Cleary's
9 discussion, as well as that of the Bank of Canada that he referenced were based on a continuation
10 of global trade uncertainty, which is clearly still the case. In short, President Trump's recent
11 announcement is not shocking as it seems consistent with what we have unfortunately come to
12 expect from him and his approach to international trade.

13 Dr. Cleary has updated his discussion in Section 4.2 of his evidence, based on the recently released
14 October 2025 Bank of Canada MPR, which is provided in Attachment IG-IR-6-Cleary. The bottom
15 line of this update is that forecasts of global GDP growth, Canada GDP growth, and Canada
16 inflation very closely align with the forecasts provided in the Bank's July 2025 MPR, and with the
17 discussion in the original version of Section 4.2 of Dr. Cleary's evidence.

18 As noted in the Bank's October 2025 MPR, the Bank returned to using "base-case" projections (bold added
19 for emphasis):

20 In the first half of 2025, the trade conflict with the United States led to a sharp rise in uncertainty.
21 Faced with an unpredictable environment, the Bank of Canada used scenarios rather than base-case
22 projections in both the April Report and the July Report. These scenarios illustrated different paths
23 for US trade policy and provided a range of possible outcomes for the Canadian economy.

24 Since the extreme uncertainty of the spring, the United States' intention to impose universal tariffs
25 on many countries and steep tariffs on specific sectors has become apparent, as have the responses
26 of other countries. **Tariffs have now been in place for many months, and their impact on the**
27 **Canadian economy has become clearer. Therefore, this Report returns to the usual practice**
28 **of providing a base-case projection.** The current projection is presented relative to January, which
29 was the last Report with a base-case projection.

Notably, the Bank's "base case" forecasts in the October 2025 MPR predict real GDP growth in Canada during 2025 of 1.2%, and 1.1% in 2026, before increasing to 1.6% for 2027. These estimates are very similar to the "current tariff scenario" forecasts included in the July 2025 MPR of 1.3%, 1.1% and 1.8% for 2025, 2026 and 2027 respectively. The October 2025 MPR further predicts inflation of 2.0% in 2025, 2.1% in 2026, and 2.1% in 2027, very close to the July 2025 "current tariffs scenario" forecasts of 1.9%, 2.0% and 1.9% in 2025, 2026 and 2027 respectively.

Request IR-7:

Reference: Page 29, Section 4.4 Nova Scotia Economy, lines 10-27.

Please expand on the differences and methodologies for extrapolating trends and data derived from the general Canadian economy to the regional economy of Nova Scotia.

Response:

Dr. Cleary cannot comment on any differences or methodologies used by the Conference Board of Canada (CB) in determining its estimates for real GDP growth and inflation estimates for Nova Scotia. However, he notes that CB is a respected source of economic analysis and forecasts. Presumably, CB conducts its independent analysis using similar data and approaches as researchers at the Bank of Canada, as well as other respected sources of such information including the banks, IMF, etc.

Request IR-8:

Reference: Page 33, lines 1-2.

To Dr. Cleary's knowledge has this pattern of "downward 'stickiness'" been explicitly addressed by any utility regulator? If so, please provide references and citations.

Response:

Dr. Cleary is not aware of any utility regulator that has "specifically" and directly addressed this downward stickiness per se. However, this represents important information that has been, and can be, considered during general rate application proceedings. In addition, as discussed in Section 5.1 of Dr. Cleary's evidence, allowed ROEs have indeed come down as bond yields have declined since 2004, just not as much. This is evident in Figure 9 of Dr. Cleary's evidence. For example, in January 2004, the allowed ROE for NS Power was 9.55%, at a time when 30-year government yields (RF) were 5.31% and A-rated utility yields (A yields) were 6.10%. So, the spread between the ROE and RF was **4.24%**, and between ROE and

1 A yields was **3.45%**. As of August 29, 2025, NS Power's allowed ROE was only 0.55% lower than in 2004
2 at 9.00%, while RF was 1.50% lower at 3.81%, and A yields were 1.18% lower at 4.92%. As a result, the
3 ROE-RF spread was 0.95% higher than in 2004 at **5.19%** (a 22% increase from 2004), while the ROE-A
4 yield spread was 0.63% higher at **4.08%** (an 18% increase). The average ROE-RF spread for NS Power
5 during the January 2004-August 2025 period of **6.10%** is 1.86% (or 44%) higher than the 2004 level of
6 4.24%, while the average ROE-A yield spread of **4.70%** is 1.25% (or 36%) higher.

7 As discussed in Section 5.1, this widening of allowed ROE and RF and A-yield spreads was not unique to
8 NS, but very similar to that which occurred in other Canadian jurisdictions, and was even more evident in
9 U.S. jurisdictions.

10 Some jurisdictions have used an ROE formula approach that adjusts the allowed ROE annually in response
11 to changes in long-term government bond yields and utility bond yield spreads. For example, the Ontario
12 Energy Board (OEB) has used such an ROE formula approach for several years, while Alberta recently
13 readopted a similar approach, after several years of not using an ROE formula. Unfortunately, the typical
14 adjustment factors are 0.5 with respect to changes in each of these variables (which is the case for the OEB
15 formula). As a result, the allowed ROEs have "lagged" the decline in these variables, since the allowed
16 ROEs have only declined approximately half as much as the decline in yields. For example, in January
17 2004, the allowed ROE for Ontario utilities was 9.88%, when RF was 5.31% and A yields were 6.10%. So,
18 the spreads between the ROE and RF was **4.57%**, and between ROE and A yields was **3.78%**. As of August
19 29, 2025, Ontario utilities' allowed ROE was only 0.52% lower than in 2004 at 9.36%, while RF was 1.50%
20 lower at 3.81%, and A yields were 1.18% lower at 4.92%. As a result, the Ontario ROE-RF spread was
21 0.98% higher than in 2004 at **5.55%**, while the ROE-A yield spread was 0.66% higher at **4.44%**.