EB-2024-0063

ONTARIO ENERGY BOARD

IN THE MATTER OF the *Ontario Energy Board Act, 1998*, S.O. 1998, c.15 (Schedule. B);

AND IN THE MATTER OF a generic proceeding commenced by the Ontario Energy Board on its own motion to consider the cost of capital parameters and deemed capital structure to be used to set rates.

ARGUMENT OF THE

ONTARIO ENERGY ASSOCIATION ("OEA")

LAX O'SULLIVAN LISUS GOTTLIEB LLP
Counsel
Suite 2750, 145 King Street West
Toronto ON M5H 1J8

Crawford G. Smith LSO#: 42131S
csmith@lolg.ca
Tel: 416 598 8648

Tyler Morrison LSO#: 80119E
tmorrison@lolg.ca
Tel: 416 956 5100

Fax: 416 598 3730

Lawyers for the Ontario Energy Association

Table Of Contents

Introduction 4
The Fair Return Standard 5
Concentric Energy Advisors 7
Determination of Cost of Capital Parameters (Issues 1-3) 8
A. Business Risk 9
i. Energy Transition 9
ii. Operating Expense Recovery 13
iii. Volumetric Risk 14
iv. Deferral and variance account ("DVA") mechanisms 14
v. Fuel and purchased power costs 15
vi. Capital spending and cost recovery 15
vii. Other Business Risks 15
B. Financial Risk 16
Short-Term Debt Rate (Issues 4-5) 17
Long-Term Debt Rate (Issues 6-9) 18
Return on Equity (Issues 10-11) 28
A. Use of North American Proxy Groups 29
B. The Use of Multiple Models Creates the Most Robust Analysis 35
C. The Discounted Cash Flow ("DCF") Model 38
D. The Capital Asset Pricing ("CAPM") Model 40
i. The Risk-Free Rate 40
ii. Beta 41
iii. The Market Risk Premium ("MRP") 43
iv. CAPM Results 45
E. Flotation and Flexibility 45
F. Risk Premium Analysis 46
G. Conclusion on Recommended ROE 50
Dr. Cleary's Recommendations are Outliers 51
H. The Ontario ROE Formula 55
i. Resetting the Base ROE in the Formula 58
ii. Ontario Formula Parameters 59

(i) Risk Free Rate – Base LCBF 61
(ii) Long Canada Bond Yield Adjustment Factor 62
(iii) Base Utility Credit Spread 63
(iv) Utility Credit Spread Adjustment Factor 64

Capital Structure and Risk Assessment (Issues 11-13) 66

A. Concentric's Jurisdictional Risk Review 66

i. Ontario's Regulatory Risk versus the Proxy Groups 66

ii. Ontario's Financial Risk versus the Proxy Groups 67

B. Concentric's Sector Specific Risk Assessments 68

i. Electric Distribution Utilities 68

ii. Electric Transmission Utilities 69

iii. Electric Generation Utilities 70

iv. Gas Distribution Utilities 71

C. Analysis of Comparative Equity Ratios 72

D. Concentrics Recommended Deemed Equity Ratio 74

Mechanics of Implementation (Issues 14-19) 79

E. How to confirm the FRS continues to be met 81

F. How to confirm that rate-regulated entities are financially viable? 81

G. How to confirm that rate-regulated entities have the opportunity to earn fair, but not excessive return? 81

Prescribed Interest Rates (Issues 20-21) 86

A. Prescribed Interest Rates for DVAs 87

B. Prescribed Interest Rates for CWIP 89

C. The Other Experts 90

Cloud Computing Deferral Account (Issue 22) 91

Introduction

1. The Ontario Energy Board (the "**Board**") has not reviewed its cost of capital and capital structure parameters since 2009. While the methodology and inputs resulting from that proceeding have functioned as designed, an update to both is required to ensure the Fair Return Standard is met.

2. The Board is investigating these issues at an important inflection point for utilities as the global energy sector tackles the challenges of broad-scale transformation from a primary reliance on fossil fuels to more non-emitting and decentralized fuel sources.[1] In Ontario, as recently emphasized by the Minister of Energy and Electrification, "Ontario's Independent Electricity System Operator (IESO) now forecasts that electricity demand alone will increase by 75 per cent by 2050. That means Ontario needs 111 TWh more energy by 2050, the equivalent of four and a half cities of Toronto." In his remarks, the Minister of Energy and Electrification also recognizes that "The OEB should continue to play its role as the natural gas system's economic regulator to protect consumers, to ensure utilities can invest in their systems and earn a fair return, and to enable the rational expansion and maintenance of the system."[2]

3. The OEB must apply the same standard of a fair return for all utilities. The goals of meeting Ontario's environmental and economic priorities and protecting consumers are not mutually exclusive. Unprecedented levels of capital investment will be required. Setting a fair return is the lynchpin that ensures that the necessary capital will be attracted at costs that are fair to consumers.

4. This argument represents the evaluation of evidence and views of the OEA. The OEA retained Concentric Energy Advisors ("Concentric)" to provide its independent analysis and recommendations for each of the 22 issues identified by the Board for this proceeding. While individual OEA members may hold individual perspectives on these

[1] Concentric Report at p. 5.
[2] Ontario's Affordable Energy Future: The Pressing Case for More Power, Stephen Lecce, Ontario's Minister of Energy and Electrification, October 22, 2024.

matters, as a group the OEA supports and adopts the evidence and opinions presented by Concentric.

5. Concentric has extensive experience in North American energy regulation including rate making and cost of capital. Concentric proposes incremental change, unlike others in this proceeding. Even where Concentric finds that parity with U.S. peer utilities would best serve the Ontario market, it suggests a more conservative approach.

6. Accordingly, Concentric recommends a base return on equity of 10.0% and a minimum equity thickness of 45% for all Ontario electric and gas utilities. As Concentric explains in its report, these are the thresholds required to meet the Fair Return Standard, recognizing that individual utilities may face unique risks and market factors that need to be assessed in utility specific proceedings. Concentric has not endeavoured to assess utility specific risk in this generic proceeding. However, given its unique position as a pure-play regulated generator amongst the Ontario utilities and the broader peer groups, Concentric recommends that, should OPG bring forward a proposal in its payment amounts application regarding an additional risk premium to be applied to its authorized ROE, the OEB should consider that proposal.

7. Concentric makes a series of other recommendations to align the cost of capital parameters with current economic conditions. These include adjustments to the long-term debt rate, the inputs for the Ontario ROE formula and the application of the weighted average cost of capital to both DVAs and CWIP balances.

8. This argument is framed in terms of the Board's 22 questions and aims to summarize each expert's position on these issues. The remainder of this argument proceeds in that fashion.

The Fair Return Standard

9. The Fair Return Standard (the "**FRS**") is a requirement that has repeatedly been reinforced by courts in Canada and the United States and must be met when considering the return a regulated entity has the opportunity to earn through its operations.

10. The principles surrounding the concept of a "fair return" for a regulated company were established by the Supreme Court of Canada in *Northwestern Utilities v. City of Edmonton* (1929):

> By a fair return is meant that the company will be allowed as large a return on the capital invested in its enterprise (which will be net to the company) as it would receive if it were investing the same amount in other securities possessing an attractiveness, stability and certainty equal to that of the company's enterprise.[3]

11. The Supreme Court of Canada in *Ontario (Energy Board) v. Ontario Power Generation Inc.* confirmed and elaborated on its decision in *Northwestern*, stating:

> This means that the utility must, over the long run, be given the opportunity to recover, through the rates it is permitted to charge, its operating and capital costs ("capital costs" in this sense refers to all costs associated with the utility's invested capital). This case is concerned primarily with operating costs. If recovery of operating costs is not permitted, the utility will not earn its cost of capital, which represents the amount investors require by way of a return on their investment in order to justify an investment in the utility. The required return is one that is equivalent to what they could earn from an investment of comparable risk. Over the long run, unless a regulated utility is allowed to earn its cost of capital, further investment will be discouraged and it will be unable to expand its operations or even maintain existing ones. This will harm not only its shareholders, but also its customers.

12. The FRS has been interpreted many times in both Canada and the U.S. The FRS mandates that three particular requirements that must be present. The FRS requires that entities' return on capital should:

(a) Be comparable to the return available from the application of the invested capital to other enterprises of like risk (the "**Comparable Return Standard**");

---

[3] *Northwestern* at p. 193.

(b) Enable the financial integrity of the regulated enterprise to be maintained (the "**Financial Integrity Standard**"); and

(c) Permit incremental capital to be attracted to the enterprise on reasonable terms and conditions (the "**Capital Attraction Standard**").[4]

13. All three standards must be met, and none ranks in priority to the others. This principle was accepted and reinforced in the Board's 2009 Report on the Cost of Capital.[5] As the Board articulated in its 2009 Report, these three requirements and meeting the FRS is not optional – it is a legal requirement.[6]

14. The Board's reliance on the FRS and these three requirements has served the Ontario energy industry well.

Concentric Energy Advisors

15. The OEA retained Concentric to assist the Board in addressing the issues identified in the issues list. James Coyne, Daniel Dane and John Trogonoski authored the report and testified on behalf of Concentric. Concentric is the only expert in this proceeding that provided evidence in the Board's 2009 Cost of Capital proceeding and is therefore able to frame its opinion with an understanding of past and present circumstances.

16. Combined, the Concentric panel has over 85 years of experience in the utility and energy industries and specifically advising on regulatory policy and the cost of capital for regulatory utilities. Concentric has testified or provided expert evidence in over 50 proceedings in state, provincial and federal jurisdictions in Canada and the U.S., including before the OEB in the 2009 Generic Cost of Capital ("GCOC") proceeding and subsequent proceedings on behalf of Enbridge Gas and OPG on similar

[4] National Energy Board RH-2-2004 Reasons for Decision, TransCanada PipeLines Ltd, Phase II, April 2005, p. 17
[5] Ontario Energy Board, EB-2009-0084, Report of the Board on the Cost of Capital for Ontario's Regulated Utilities, December 11, 2009, p. i.
[6] Ontario Energy Board, EB-2009-0084, Report of the Board on the Cost of Capital for Ontario's Regulated Utilities, December 11, 2009, p. i.

matters. Concentric has also worked with OEB Staff and provided expert reports on the cost of capital, low-income programs, and demand-side management programs.

17. Simply put, Concentric's experience in regulatory policy, rate making, and cost of capital is unmatched in this proceeding and in the North American market at large and the issues list provided by the Board fall precisely within Concentric's core area of expertise.

Determination of Cost of Capital Parameters (Issues 1-3)

Issue #1 Should the approach to setting cost of capital parameters and capital structure differ depending on the source of capital (i.e., whether a utility finances its business through the capital markets or through government lending such as Infrastructure Ontario, municipal debt, etc.) or on different types of ownership (e.g., municipal, private, public, co-operative, not for profit, Indigenous / utility partnership?

18. Consistent with longstanding Board policy and the FRS, the approach to determining the authorized ROE or capital structure should not differentiate by ownership type. As described by Concentric, financial theory provides that the cost of capital depends on the use of funds, not the source of the funds.[7]

19. The Board adopted this approach in its 2009 Report.[8] There is no reason to deviate from this well-established principle that supports the FRS by ensuring regulated entities return on capital meets the Comparable Investment Standard regardless of the source of the entity's capital.

20. Practically, if the Board were to determine the source of funds was determinative, or even a factor, the Board would be required to distinguish between the cost of equity from different investors. As the sources of potential investment are numerous, the administrative burden on the Board would be immense.

[7] Concentric Report p. 20.
[8] EB-2009-0084, Report of the Board on the Cost of Capital for Ontario's Regulated Utilities, December 11,
2009, p. 25-26

21. All the experts in this proceeding agree that the cost of capital parameters should not differ by ownership type.

Issue #2 What risk factors (including, but not limited to, the energy transition) should be considered, and how should these risk factors under the current and forecasted economic and market conditions be considered in determining the cost of capital parameters and capital structure?

22. As explained by Concentric, there are two fundamental sources of risk for any company, including regulated entities: business risk and financial risk. Below is a summary of each of these risks and how they should be considered in determining the cost of capital parameters and capital structure.

A. Business Risk

i. Energy Transition

23. Energy Transition is generally defined as the broad-scale transformation from primary reliance on fossil fuels to an increased emphasis on more clean and decentralized fuel sources and electrification in general. As a result of these fundamental changes, Utilities are facing increased risk across a range of areas. This includes risks due to changing customer preferences and environmental laws such as the Clean Electricity Regulations (proposed) under the Canadian Environmental Protection Act and the Canadian Net-Zero Emissions Accountability Act (2021) and analogous provincial and municipal regulations and policies (e.g. Ontario's Emissions Performance Standards).[9] It also requires significant investments across the sector to meet the increasing electricity demand while ensuring safe and reliable natural gas service during a period of increased complexity.

24. Not a single expert denies that the Energy Transition is real. The only disputes are whether its effects are being felt by utilities now and its impact on the cost of capital. The reality is that the global energy sector has embarked on a broad-scale

[9] Concentric Report at p. 22.

transformation from a primary reliance on fossil fuels to an increased emphasis on more renewable and decentralized fuel sources.[10]

25. From the perspective of electricity distributors and transmitters, there is no denying the current and future rising demand for electricity. New electricity infrastructure is and will be needed to support this demand. This has increased the need for distribution and transmission utilities to source clean energy generation, such as nuclear energy, provide reliable, low-cost generation capacity over the long-term. Substantial new distribution and transmission infrastructure will also be necessary. There is a great deal of uncertainty as to the pace and cost of this new infrastructure. As a result, the risk profile of each utility segment in North America has fundamentally evolved.[11]

26. The capital expenditures required to support the Energy Transition cannot be understated. In Ontario alone, gross capital spending across electric distributors increased from $1.8 billion annually in 2012 to over $2.5 billion annually in 2022.[12]

27. Further, in its December 2023 report, the Electrification and Energy Transition Panel ("EETP") noted that in the medium term (i.e., 2030-2050) the Energy Transition will enter an intense transformation affecting every part, sector, and community in Ontario, leading to the establishment of a clean energy economy.[13] Globally, investment in clean energy is already underway with an expected USD 2 trillion going to clean energy technologies and infrastructure in 2024,[14] and an estimated requirement of USD 4 trillion in clean energy investment to support global decarbonization by 2030.[15] As utilities plan and execute infrastructure projects to meet policy mandates and reduce climate risk, the increased demand for labor, supplies, and capital, as well the development of new technologies, will create constraints, increase costs and

[10] Concentric Report at p. 22.
[11] Concentric Report at p. 23.
[12] Data cited from OEB's Yearbook of Electricity Distributors and Open Data, Section 2.1.5.2 Capital
[13] Electrification and Energy Transition Panel, "Ontario's Clean Energy Opportunity," January 2024.
[14] International Energy Agency, "World Energy Investment 2024," https://www.iea.org/reports/world-energy-investment-2024/overview-and-key-findings
[15] Electrification and Energy Transition Panel, "Ontario's Clean Energy Opportunity," January 2024.

consequently increase the risks (and commensurate return requirements) associated with investment in their securities.

28. Concentric estimates that these increases are reasonably expected to continue in the short term as a consequence of the Energy Transition.[16] Common sense suggests the same – as demand continues to increase, energy infrastructure will need to be modernized and expanded.

29. For OPG, Energy Transition requires the taking on of multiple new projects to support the system's future generation needs. These projects are expected to have heightened risks including labour force, supply chain and financing risks, which are exacerbated as utilities locally and globally respond to Energy Transition in parallel. There are also construction risks, particularly for first-of-a-kind or first-in-a-while technologies that carry higher cost and schedule risks. These risks are further magnified in the very specialized nuclear field. Additionally, due to their size and duration, the regulatory lag of cost recovery during construction for OPG's projects may be particularly impactful to the company's ability to raise the necessary capital while maintaining its credit ratings.[17]

30. The Energy Transition does not only affect electricity utilities. The OEB very recently found in the Enbridge Gas Rebasing Application that the Energy Transition poses a risk that assets used to serve existing and new Enbridge Gas customers will become stranded because of the Energy Transition.[18] The OEB elaborated on this risk in the same decision stating:

> The risk that arises from the energy transition results from gas customers leaving the gas system as they transition to electricity to meet energy needs previously met by natural gas. This departure gives rise to assets that are not fully depreciated but are no longer used and useful. This results in stranded asset costs that Enbridge Gas would seek to recover from the remaining gas customers. This in turn would increase rates for those gas customers, leading

[16] Concentric Report at p. 23.
[17] Exhibit N-M2-2-SEC-33.
[18] Decision and Order of the OEB dated December 21, 2023, Enbridge Gas Rebasing Application Phase 1 (EB-2022-0200), page 2 (the "**Rebasing Decision**").

more customers to leave the gas system, potentially leading to a continuing financial decline for the utility, often referred to as the utility death spiral.[19]

31. Notwithstanding these risks, Enbridge Gas must continue to invest in its systems to provide safe and reliable natural gas service while also navigating through increasing complexities for gas distributors brought on by the Energy Transition. Natural gas remains a significant source of energy in Ontario, and gas distributors remain a vital source of energy, especially in the face of increased electricity demand that will take time to meet. The placement by S & P Global of Enbridge Gas on a negative outlook in its June 28, 2024 ratings update is evidence of the impact of the Energy Transition on the business risks faced by the utility. This impact is immediate and will negatively affect the cost of debt in future.[20]

32. Concentric concludes that the Energy Transition has already increased both business and policy-related risks for Ontario utilities and is inevitably going to continue to do so.[21] The placement of Enbridge Gas on a negative outlook by S&P Global in its June 28, 2024 ratings update is evidence that this is occurring already.

33. As explained further below, Concentric has not made any adjustments to its ROE or capital structure recommendations on the basis of the Energy Transition. Rather, as Concentric explained on examination, the effects of the Energy Transition are captured in the financial models used to analyze the cost of capital and in the returns of comparable investments. Regulatory Risk

34. While Ontario utilities operate in a highly respected regulatory environment, utilities operating in any jurisdiction face significant regulatory risk by virtue of the effects regulatory decisions can have on their operations.

35. In providing their analysis and credit ratings, credit rating agencies assess whether a utility's regulatory environment is constructive and supports the predictability of cash flow. For example, Moody's Investors Service ("Moody's") places significant

[19] Rebasing Decision pages 20 and 22.
[20] Exhibit N-M2-11-CME-10, Attachment 1
[21] Concentric Report at p. 23.

weight on the “stability and predictability of regulatory regime” in its regulated electric and gas utilities methodology.[22]

36. Regulatory decisions detrimental to credit quality, such as those that lead to the utility’s ability to attract sufficient capital or introduce uncertainty of recovering its capital costs, strengthens the downward pressure on credit ratings. Lower credit ratings signal higher risk to investors, which then increase capital costs for utilities putting additional financial pressure on the company and its customers.[23]

37. It is noteworthy that on October 23, 2024, the Government of Ontario introduced Bill 214 titled: “An Act to amend various energy statutes respecting long term energy planning, changes to the Distribution System Code and the Transmission System Code and electric vehicle charging”[24]. While this Bill is only at the First Reading stage, if passed, it will, in effect, give the Minister of Energy the ability to make regulations specifying amendments to or exemptions from the Distribution System Code and the Transmission System Code about specified matters respecting cost allocation and cost recovery relating to the construction, expansion or reinforcement of distribution systems or transmission systems, or of connections to those systems. The Bill further provides that the OEB would not have the authority to amend or revoke an amendment specified by the Minister of Energy for as long as the regulation specifying the amendment is in force. This Bill may be seen as introducing a degree of political uncertainty into the regulatory environment in Ontario and could have an impact on the credit rating agencies view of Ontario’s regulatory environment for distributors and transmitters.

38. Regulatory risks encompass the additional risks of regulatory lag and timely recovery, which should be factored into the overall risk profile of the utility, as further discussed below.

ii. Operating Expense Recovery

[22] Concentric Report at p 23.
[23] Concentric Report at p. 24
[24] Bill 214, Affordable Energy Act, 2024, October 23, 204.

39. Predictability and transparency of the regulatory framework to enable recovery of prudently incurred operating expenses help support the risk profile of operating companies, and support risk mitigation for investors. The ability to recover operating expenses "underpins utility's predictable and steady cash flow" via timely recovery of prudently spent capital and operating expenses.[25]

iii. Volumetric Risk

40. Full and partial decoupling mechanisms and other rate design approaches in North America will continue to be an important consideration in utility's ability to recover fixed costs, especially as volumes of natural gas sold decline for natural gas distributors, and variability increases for electric utilities. The same is true for an electricity generator such as OPG, with cost recovery variability related to generation output. Absent regulatory mechanisms to mitigate against volumetric risk, higher regulatory risk will warrant a higher level of return and cost of capital for utilities.[26]

iv. Deferral and variance account ("DVA") mechanisms

41. Credit-supportive regulatory mechanisms, such as the DVAs established by the OEB, enable recovery of prudently incurred pass-through costs and reduce the risk of cost recovery for utilities. The predictable availability of DVAs and other risk mitigating mechanisms helps to ensure that utilities can maintain operations and the ability to recover costs in a timely manner, especially during challenging economic and capital market conditions, in response to severe weather events, and when other unforeseen circumstances arise. Importantly, however, the circumstances that give rise to the use of DVAs (e.g., energy and regulatory policy changes) create additional risks for utilities. In that regard, DVAs can help to neutralize those new sources of risk, but they do not necessarily eliminate or offset those risks. In addition, Ontario is not unique in its application of DVAs, as such mechanisms are widely employed throughout the North American utility industry, as discussed in Concentric's comparative risk discussion.[27]

---

[25] Concentric Report at p. 24.
[26] Concentric Report at p. 24.
[27] Concentric Report at p. 25.

v. Fuel and purchased power costs

42. Timely recovery of prudently managed fuel and purchased power costs provides cash flow and financial stability and predictability for utilities. The direct pass-through of commodity costs are common in North America, allowing most utilities (except OPG who bears risk for nuclear fuel costs) to fully recover any fuel and purchased power costs from their customers without any meaningful lag.[28]

vi. Capital spending and cost recovery

43. The utility's ability to recover prudently incurred capital costs in a comprehensive and stable manner both for ongoing capital programs and major projects, and to accrue (and ultimately recover) appropriate financing costs during construction, is necessary to raise funds for future capital spending needs. The importance of timely capital cost recovery and the recognition of construction financing costs is amplified during periods of increased industry-wide construction activity and due to cost pressure from the tightening of the labour and supply markets. Industry-wide construction activity is necessary to facilitate the Energy Transition.[29]

vii. Other Business Risks

44. Other business risks that should be considered when evaluating the appropriate cost of capital include impact of severe weather events (more frequent and severe weather events, such as wildfires, hurricanes, and floods that pose the highest physical risk to utilities than any other sector), competition from alternative fuels (displacement of fossil fuels with cleaner and/or other alternatives) and system bypass, technology risk and two-way power flows, increased expectations regarding reliability, and changes in government policies.[30]

---

[28] Concentric Report at p. 26.
[29] Concentric Report at pp. 26-27.
[30] Concentric Report at p. 27.

B. Financial Risk

45. Financial risk, which focuses on solvency and liquidity, is often measured through credit metrics, and a utility's credit rating provides a widely accepted opinion from a third-party rating agency of the utility's overall creditworthiness.

46. Regulatory framework decisions that restrict the utilities' ability to recover costs and increase the volatility of cash flows impact credit metrics used by rating agencies to further assess the financial health of a company. Moody's and S&P Global use a set of key credit ratios to assess rating actions. Funds from Operations ("FFO")/Debt and Cash From Operations Pre-Working Capital ("CFO")/Debt are evaluated by S&P Global and Moody's, respectively, for all regulated utilities, as well as Debt/Earnings Before Interest, Taxes, Depreciation, and Amortization ("EBITDA").

47. Credit ratings directly impact the cost of debt and are considered by equity investors in their assessment of the overall financial risk of an investment. Increasing capital needs for construction projects, including capital-intensive projects to support the Energy Transition, are likely to tighten the supply of equity capital available across the industry, with equity investors becoming increasingly discerning regarding where they invest their capital. A combination of tightening capital markets and industry cash flow challenged by high capital spending will cause investors to seek compensatory returns for the elevated risk of investing in utility's securities.[31]

Issue #3 What regulatory and rate-setting mechanisms have impacted risk factors, and how should they be considered in determining the cost of capital parameters and capital structure?

48. A variety of regulatory and rate-setting mechanisms impact utility risk, and investors consider not only the ratemaking approach that is used to establish base rates, including the authorized rate of return, but also mechanisms such as DVAs that allow costs to be tracked and rates to be adjusted between rates applications.[32]

---

[31] Concentric Report at p. 27-28.
[32] Concentric Report at p. 29.

49. Concentric generally agrees with LEI that a review of risks should consider regulatory mechanisms. Concentric notes that the proactive assessment of major regulatory changes, if performed by the OEB, should also include an assessment of regulatory decisions that could impact utilities beyond the applicant utility.[33]

50. Concentric stresses the importance of considering the relative risk of Ontario utilities vis-à-vis ratemaking mechanisms. Without this comparative analysis, the Comparable Return Standard cannot be satisfied. While the implementation of a new regulatory mechanism may reduce a utility's absolute risk, it does not necessarily reduce the cost of capital if peer utilities have similar risk-mitigating mechanisms available to them.[34]

51. Concentric therefore recommends that the Board modify its approach to assessing utility risk to incorporate comparative risk and return assessments regardless of whether a significant change in risk has been demonstrated. Even where there is no significant risk change for Ontario utilities, a change in ratemaking mechanisms in peer jurisdictions may create a scenario where the comparable return standard is not being met in Ontario because of the other jurisdictions change in ratemaking mechanism.

52. If the deemed equity thicknesses for Ontario utilities diverge from peer equity thicknesses (which, in Concentric's analysis, they have), then the Comparable Return Standard is not being met, even if Ontario utilities have not experienced a significant shift in risk.[35]

Short-Term Debt Rate (Issues 4-5)

Issue #4 Should the short-term debt rate for electricity transmitters, electricity distributors, natural gas utilities, and OPG continue to be set using the same approach as set out in the OEB Report?

Issue #5 If no to Issue #4, how should the short-term debt rate be set?

[33] Concentric Report at p. 31.
[34] Concentric Report at p. 31.
[35] Concentric Report at p. 32.

53. The OEA recommends, as does Concentric, that the Board should continue to follow the same process for determining the cost of short-term debt as discussed in the 2009 Report. However, because Banker's Acceptance rates are no longer available after June 2024, Concentric agrees with LEI that transitioning to a measure of short-term loan rates, such as the three-month average of the Canadian Overnight Repo Rate Average ("**CORRA**") is appropriate, with a spread based on an R1-low rated utility over CORRA being applied in the short-term debt rate calculation.[36]

54. Concentric disagrees with LEI's recommendation to apply a cap on the short-term debt rate for all utilities. The previous model has worked well, and LEI was unable to identify any actual harm its approach tries to mitigate. A number of the comments made below in respect of issues #6 & 7 regarding LEI's recommendation that the Long-Term debt cap apply to all utilities are equally applicable here.

Long-Term Debt Rate (Issues 6-9)

Issue #6 Should the long-term debt rate for electricity distributors, natural gas utilities, and OPG continue to be set using the same approach as set out in the OEB Report and as set out in the Staff Report for electricity transmitters?

Issue #7 If no to Issue #6, how should the long-term debt rate be set?

55. Concentric does not recommend changes to the current approach whereby, in general, the long-term cost of debt for ratemaking purposes is based on embedded costs, subject to the use of a deemed long-term cost of debt in certain circumstances for electricity distributors. For instances where the deemed cost of debt applies, Concentric recommends certain modifications to the inputs to the deemed rates.

56. The Board noted in its 2009 Report that the deemed long-term debt rate "will act as a proxy or ceiling for what would be considered to be a market-based rate by the Board in certain circumstances."[37]

---

[36] Concentric Report at p. 33.

[37] EB-2009-0084, Report of the Board on the Cost of Capital for Ontario's Regulated Utilities (OEB Report), December 11, 2009, p. 53-54.

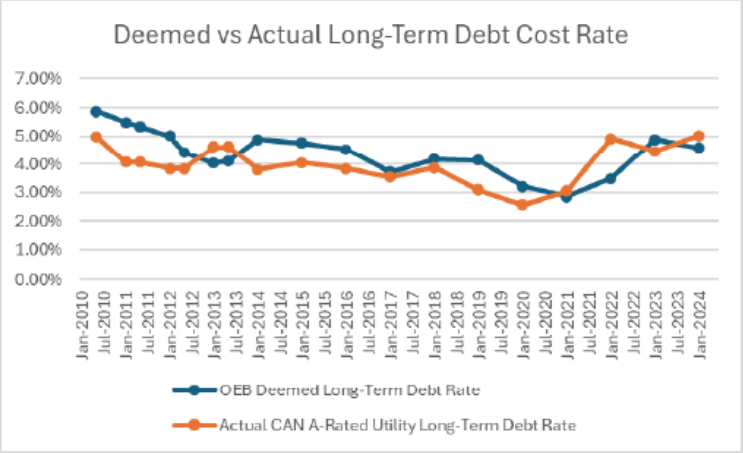
57. For example, for affiliate debt with a fixed rate, the deemed long-term debt at the time of issuance will be used. For affiliate and third-party variable-rate debt, as well as debt callable on demand within the test year period, the long-term debt rate will be a ceiling on that debt's rate. For debt callable on demand outside the test year period, it will be treated as if it is not callable. The Board also noted that "the long-term debt guidelines relating to electricity distribution utilities are expected to evolve over time and are expected to converge with the process used by the Board to determine the amount and cost of long-term debt for natural gas distributors."[38]

58. Under the current approach, the Board determines the deemed long-term debt rate formulaically based on the 30-year Government of Canada ("GOC") bond yield forecast, plus the average historical spread between A rated Canadian utility bond yields and 30-year Government of Canada bond yields. The 30-year GOC bond yield forecast is determined using a forecast of the 10-year GOC bond yield sourced by Consensus Forecasts and adding the historical spread between 10- and 30-yr GOC bond yields. The 30-year GOC bond yield forecast and both spreads (the 10-year to 30-year spread, as well as the A rated utility to 30-year spread) are determined by averaging the business days of the month three months in advance of the new rates' effective date.

[38] Ibid, p. 52.

59. Concentric compared the OEB's deemed long-term debt rates published since 2010 with actual Canadian utility long-term debt rates tracked by a Bloomberg index of 30-year Canadian A-rated utility bonds. The actual long-term debt rates were averaged annually to compare to the calendar rate years in which the deemed long-term debt rates were effective. Since 2010, the OEB's deemed long-term debt cost rate has had periods of being above and below the Bloomberg index, and averaged 40 bps higher than the index. Both measures may understate actual debt costs if issuance costs are not included:[39]

Figure 2: Deemed vs Actual Long-Term Debt Cost Rate



60. Concentric also looked to other Canadian jurisdictions to determine if other approaches may be helpful in evaluating Ontario's deemed long-term debt rate formula. In Alberta, the Alberta Utilities Commission ("AUC") states that "the cost of debt (or the interest rate a utility pays on debt) is not typically set by the AUC, but is determined in the market, based on who is willing to lend the utility money."[40] In the 2024-2028 Performance-Based Regulation Plan for Alberta Electric and Gas Distribution Utilities, the AUC uses the actual embedded debt cost to determine reasonable long-term debt rates.[41] The AUC's Determination of the Cost-of-Capital Parameters in 2024 and Beyond includes a comparative analysis of the embedded average debt rate among

[39] Concentric Report at p. 35.
[40] Alberta Utilities Commission website, "Rate of Return", accessed May 30, 2024. https://www.auc.ab.ca/rate-of-return/
[41] Alberta Utilities Commission, 2024-2028 Performance-Based Regulation Plan for Alberta Electric and Gas
Distribution Utilities, October 4, 2023.

distribution and transmission utilities in Alberta, in which the AUC determined an embedded average debt rate of 4.20 percent is reasonable. This figure was higher than the overall simple average debt rate for the utilities analyzed, which was 4.09 percent based on 2023 data; however, the AUC errs on the conservative side due to the resulting EBIT coverage and funds from operations coverage ratios.[42]

61. In British Columbia, in its May 2013 Generic Cost of Capital Decision, the British Columbia Utilities Commission ("BCUC") found that "the cost of deemed long-term debt (rate and term) for each utility should be addressed separately on a case-by-case basis."[43] In addition, the BCUC found that the following methodology should be used as a "guideline" going forward for setting the deemed long term debt rate applicable to a small utility without third-party debt:

(a) Assign a credit rating on a stand-alone basis, and then obtain indicative quotes from investment dealers or banks based on the credit rating of a comparable proxy issuer. Using proxy companies that are engaged in the power sector or energy infrastructure can help to minimize subjectivity. A reasonable deemed stand-alone rating for a small regulated utility appears to be in the range of BBB to BBB (low), with the deemed debt cost set on this basis;

(b) Determine a Government of Canada (GoC) bond yield reflecting the proposed term of debt that could be either the 10-year or 30-year bond as the benchmark, or an interpolation of the two. The selected benchmark should reflect the long-term nature of utility assets, contractual terms and available debt terms.

(c) Determine the credit spread of a comparable corporate proxy issuer in similar industries or lines of business (e.g., regulated utility, power

[42] Alberta Utilities Commission, Determination of the Cost-of-Capital Parameters in 2024 and Beyond, October 9, 2023.
[43] British Columbia Utilities Commission, Generic Cost of Capital Proceeding (Stage 1), Decision May 10, 2013, p. 110.

generation, energy infrastructure) at the same term to maturity as that selected as the benchmark GoC bond.[44]

62. The OEB's approach to the deemed long-term debt cost rate is similar to and a specific form of the BCUC approach outlined above (i.e., the OEB's deemed long-term debt rate methodology specifies a deemed credit rating of "A" in Step 1, determines the 30-year Long Canada Bond Forecast ("LCBF") as the reasonable benchmark in Step 2, and applies the appropriate historical spread, as in Step 3).

63. Concentric finds that the general use of embedded debt costs of each individual utility company is reasonable and appropriate for previously incurred debt, and further that utilities should be allowed to forecast debt rates for debt that will be incurred during the rate plan, subject to review and approval by the OEB.[45]

64. If the Board were to modify its approach to the deemed long-term debt cost rate, Concentric suggests considering a long-term debt rate benchmarking intended to confirm that the Board's deemed long-term debt cost rate is within reasonable error-bounds of actual utility debt costs. Concentric further recommends adopting the same approach it recommends to the ROE formula. In either case, Concentric recommends using 90-day averages for spreads versus the current month of September only.[46]

65. LEI recommends considering publicly available reputable sources for 30-year bond yield forecasts for the LCBF, and further using Bloomberg's BVCAUA30 BVLI Index (12- month trailing average) for the A-rated utility spread over the Long Canada Bond Forecast. Lastly, LEI recommends using the deemed long-term debt rate as a cap for debt costs for all jurisdictional utilities, not just electricity distributors and transmitters. This contrasts with the current practice where Enbridge Gas and OPG adduce evidence of their historic costs of Long-Term debt and their forecasts of future costs which is then

[44] British Columbia Utilities Commission, Generic Cost of Capital Proceeding (Stage 1), Decision May 10, 2013, p. 107-108.
[45] Concentric Report at p. 37.
[46] Concentric Report at p. 38.

subject to a prudence review by the OEB for the purposes of setting a Long-Term debt rate going forward that is based on the evidentiary record.

66. Concentric agrees with LEI regarding the use of 30-year forecasts, and transitioning from use of the C29530Y Index on Bloomberg to the BVCAUA30 BVLI Index for considering the spread over the LCBF for an A rate utility, versus the current approach that relies on the Consensus 10-year forecast plus a 10-30 spread. Concentric also recommends using 90-day averages for spreads versus the current month of September only. However, Concentric does not agree about the automatic application of a cap on debt costs.[47]

67. The rejection of a uniform application of the cap would be consistent with the OEB's findings in EB-2010-0008, where the OEB found that OPG's actual cost of debt was more appropriate for rate setting purposes than a deemed cost of debt, and that the "deemed long-term debt rate is only intended to apply where a utility has no actual long term debt (or where the debt is held by an affiliate)."[48]

68. In respect of Natural Gas Distributors, the OEB noted in its Report of the Board on the Cost of Capital for Ontario's Regulated Utilities[49] that:

> The Board has a long history of determining the cost of long-term debt for natural gas distributors. Based on this experience and in the absence of any material comments in the consultation suggesting otherwise, the Board is of the view that the current policy of using the weighted cost of embedded debt should continue.

69. It should be noted that there is no evidence in this proceeding that the current practice has been at any time problematic. It is therefore reasonable to state that the situation today is the same as it was in the 2009 Cost of Capital proceeding in that there remains an absence of any material comments suggesting that the status quo should be revised.

---

[47] Concentric Report at p. 38.
[48] Decision with Reasons (EB-2010-0008), March 10, 2011, p. 125.
[49] Ontario Energy Board, EB-2009-0084, Report of the Board on the Cost of Capital for Ontario's Regulated
Utilities, December 11, 2009, p. 51.

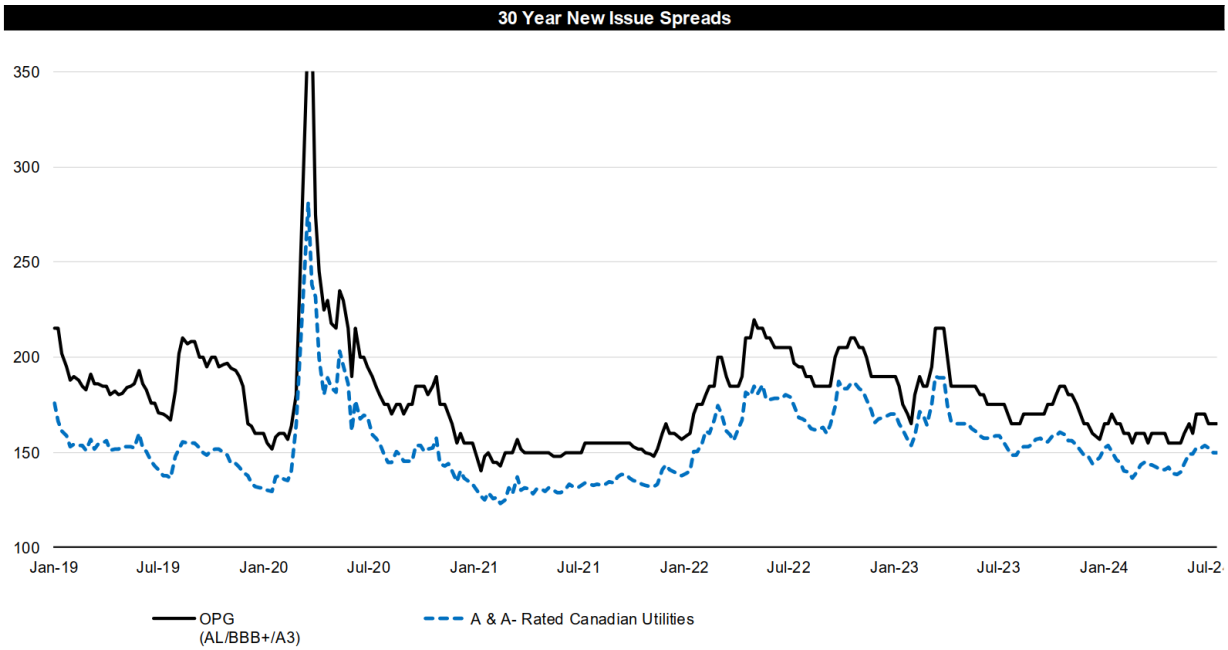
70. The impact of applying a cap to Enbridge Gas and OPG would result in a material under recovery of their actual cost of Long-Term debt. Comparing recent Long-Term debt issuances of Enbridge Gas and OPG to the Deemed Long-Term debt rate (which LEI proposes should apply), the two utilities would have not recovered in rates interest expense of $13.09 million for the years 2022 and 2023 in respect of Enbridge Gas and $6.2 million for the years 2019 – 2024 in the case of OPG.[50] Not permitting recovery of such reasonably incurred costs runs counter to basic rate making principles.

71. Further, capping all utilities at the deemed debt cost would not be reflective of the spectrum of credit ratings assigned to regulated utilities. With the index constituent bonds comprising issuances rated A+, A, and A-, a utility such as OPG that is rated on the lower end of this spectrum would not be appropriately compensated for their cost of debt, given that each notch lower on the credit rating scale generally entails a higher cost of funding. As with its findings regarding the deemed short-term debt rate, Concentric does not believe a change to the OEB's current practice in this regard is warranted or necessary, and utilities should continue to be provided with the opportunity to forecast debt rates for debt that will be incurred during a rate plan. While the deemed debt rate can inform the OEB's assessment of utility-specific debt rates, the rote application of a cap on debt costs could result in utilities not being provided the opportunity to recover prudently incurred costs.[51] Additionally, where a deemed cap is higher than the actual rate, the difference would be unnecessarily passed on to rate-payers.

72. Lower-rated borrowers face higher costs of borrowing. A utility such as OPG, which is rated A(low)/BBB+/A3 by DBRS/S&P/Moody's, has a credit rating at the lower end of the A+, A, A- scale. Further, OPG has higher risk generation assets, which result in bond investors requiring a higher credit spread premium when investing in OPG

[50] Exhibit K1.1, pp. 86 & 87.
[51] Concentric Report at pp. 38-39.

bonds. The difference in credit spreads between OPG and an average of Canadian A and A- rated utilities is demonstrated in the chart below.[52]



Source: TD Bank.

73. On cross-examination, LEI was asked repeatedly to identify the "mischief" that their proposed cap on long-term debt rates was intended to solve. LEI was unable to do so, and continued to deflect the question when asked. [53]

74. The Board should resist suggestions to change established policy that has proven to work well in the absence of compelling reasons to do so. Here the recommending party is unable to articulate, demonstrate or provide an example of the mischief (or benefit) they are trying to prevent (or achieve) with its recommendation. There is simply no need for a cap on long-term debt rates (or short-term debt rates).

75. Perhaps recognizing the unreasonableness of its recommendation, LEI confirmed in its interrogatory responses that Enbridge Gas and OPG would remain at liberty to apply for a Short and Long-Term debt rate other than the deemed rate cap that it recommends apply.[54] It is not clear what test the OEB should apply to accept a

[52] Exhibit N-M2-7-OEB Staff-6.
[53] Transcript Oral Hearing Volume 1 at pp. 100-101.
[54] Ex. N-M-5-OEA-5 and Ex. N-M1-7-OEA-6 (f)

variance from the application of the deemed Long-Term (and Short-Term) cap rates. Is the test different from that of other forecast costs? Is there some sort of reverse onus that must be met? Further, LEI has failed to consider how the recommendation will impact regulatory efficiency. It appears to simply impose a further regulatory burden requiring the utilities to explain why they cannot live with the deemed debt cap rates in addition to adducing evidence about historic rates and forecast rates.

76. Without providing a reason why, or an example of the mischief trying to be prevented, Dr. Cleary adopts LEI's recommendation to apply a cap to the long-term debt rate.[55] For the same reasons as outlined above, that recommendation should not be adopted.

77. Dr. Cleary further recommends that the Board should use the spot bond yields as of September 30 to set the LCBF instead of the current approach that relies on a forecast of bond yields for the LCBF. His only reasoning appears to be that the prevailing rate has been historically closer to the actuals bond yields than the forecast. Dr. Cleary notes that the forecasts overestimated the actuals by 0.37% between 2011-2024. This is not a compelling reason to alter the current approach. Principally, given that the costs of long-term debt will be carried in the future, setting the LCBF should require a forecast to estimate the actual costs in the future of that debt.

78. Nexus does not opine on this issue.

Issue #8 How should transaction costs incurred by utilities be considered when setting the long-term debt rate?

79. There should be no change to the current approach that was adopted in the 2009 Report. Debt issuance costs are a legitimate cost of funding the operations of the utilities and should be recovered in rates through the embedded cost of long-term debt as is the OEB's current practice.

[55] Cleary Report at pp. 24-26.

Summary of Expert Opinions

Concentric	Nexus	LEI	Dr. Cleary
No change to current approach	No change to current approach	Recover debt transaction costs as they occur on a cash basis	No change to current approach

80. LEI is the only expert that recommends a change to the OEB's current approach. LEI recommends that utilities should account for transaction costs as operating expenses. This is despite LEI's own jurisdictional review supporting the OEB's current approach.[56]

81. LEI's approach would appear to go against their own principles of "transitioning away from the status quo only if the associated benefits are material" and "fairness in approach to consumers and utilities". LEI does not present any compelling reason to deviate from the status quo. Citing "irregularity and amount of debt issuance" LEI believes an operating expense approach would be preferred. As Concentric explains, the fact that debt issuances may be irregular or of different amounts is irrelevant to the recovery of prudently incurred transaction costs, which, like the interest paid over the life of borrowings, are part of the cost of debt and should be recognized over the life of the debt for which the costs were incurred. LEI's approach puts Ontario utilities at risk of not recovering these costs simply because they were not incurred in the test year or are expected to be incurred over the rate plan.[57]

82. Recovering issuance costs over the life of the associated debt is consistent with the principle that costs follow benefits, by spreading the cost to all ratepayers who benefit from the debt. Recovering lumpy issuance costs could lead to intergenerational inequity with customer paying for costs they don't benefit from. This is also the appropriate treatment under generally accepted accounting principles (GAAP).

[56] LEI Report at p. 94, s. 4.8.2.
[57] Concentric Report at p. 40.

Issue #9 What are the implications of variances from the deemed capital structure (i.e., notional debt and equity) and how should they be considered in setting the cost of long-term debt?

83. Variances from the deemed capital structure should not be taken into account when setting the costs of long-term debt.

84. All experts who commented on this issue (Nexus did not address this issue) agree that the status quo should be maintained and that the deemed capital structure should determine the debt and equity costs that are recovered in rates.[58]

85. As Concentric points out, Ontario's regulated utilities should continue to be given the discretion to manage their actual capital structure within reasonable bounds. This is particularly important for the periods between when the OEB assesses each utility's ratemaking capital structure, as it is important for the utilities to be given latitude in managing their credit profiles and accessing the debt and equity markets when conditions warrant.[59]

Return on Equity (Issues 10-11)

Issue #10 What methodology should the OEB use to produce a return on equity that satisfies the Fair Return Standard (FRS)?

86. The OEB should adopt a multiple model approach to the determination of ROE. This approach leads to a recommended base ROE of 10.0% in order to meet the FRS.

[58] Concentric Report at pp. 40-41; LEI Report at p. 96, s. 4.9.1; Cleary Report at p. 27, s. 3.9.
[59] Concentric Report at p. 40.

Expert Position Summary

Method	Concentric	Nexus	LEI	Dr. Cleary
Proxy Group	North American 25 companies	North American 46 companies	North American 28 companies	Canada only 5 companies
DCF	Current Market data Multi-stage model EPS growth and GDP growth	Current Market data Single-stage model EPS growth	Current-market data Single-stage model EPS growth	Average Market data Sustainable growth GDP growth rates
CAPM	Forecast risk-free rate, Blume betas, Historical MRP for US and Canada	Forecast risk-free rate, Blume betas (adjusted for financial leverage), Forward MRP	Forecast risk-free rate, Raw betas (adjusted for financial leverage), US based historical MRP	Spot risk-free rate Judgemental beta Canadian Survey MRP
Risk Premium	US Gas, Electric & Canadian	US Gas and Electric	Risk-free rate + updated ERP of 5.5%	A-rated utility bond + 2.5% RP
Flotation & Flexibility	50 bps	50 bps	No adjustment	50 bps
Basis for Recommendation	Multiple models	Multiple models	CAPM only	Multiple models
Recommendation	10.0%	11.08%	8.95%%	7.05%

A. Use of North American Proxy Groups

87. Because the ROE is a market-based concept, it is necessary to establish a group of companies that is both publicly traded and comparable to Ontario's utilities in fundamental business and financial respects to serve as a "proxy" for purposes of ROE estimation.

88. All experts, except Dr. Cleary, agree that U.S. companies are sufficiently comparable to Ontario utilities such that they should be used as proxies for the purpose of the ROE analysis. In fact, it is necessary to use U.S. companies as proxies to ensure that the Comparable Return Standards is being met. This is because, as Concentric

notes, “In a world of increasingly linked economies and capital markets, investors seek returns from a global basket of investment options.”[60]

89. There is ample evidence that the Canadian and U.S. economies and capital markets are highly integrated and that Ontario utilities compete for capital with their U.S. counterparts:

(a) According to the U.S. Department of State: “The United States and Canada enjoy the world’s most comprehensive trading relationship, which supports millions of jobs in each country. Canada and the U.S. are each other’s largest export market and Canada is the number one export market for more than 30 U.S. States.” The magnitude and significance of trade between the two countries reflects the high degree of integration between the two economies.[61]

(b) As Concentric’s analysis shows, several measures of the overall economic and investment environment in Canada and the U.S. show that, on balance, the economic and business environments of the two countries are highly integrated and exhibit strong correlation across a variety of these metrics, including GDP growth and government bond yields.[62]

(c) Concentric’s experience suggests that equity analysts perceive the U.S. and Canada as part of an integrated North American market for capital. This is demonstrated by a March 2019 report by equity analysts at Scotiabank indicating that they view the regulatory environments in Canada and the U.S. as being similar for regulated utilities. In explaining why they expect the valuations of Canadian and U.S. utilities to converge, Scotiabank observed: “Canadian and U.S. valuations should converge. Historically, the Canadian utilities have traded at a premium to their mid-cap U.S. peers. We attribute this to the historical view that Canadian

[60] Concentric Report at p. 52.
[61] Concentric Report at p. 54; Citing U.S. Department of State, https://www.state.gov/u-s-relations-with-canada.
[62] Concentric Report at p. 54; See also Concentric Exhibit CEA-3.

regulation was superior to U.S. regulation (***we no longer have that view***) as well as to strong earnings growth in part due to M&A."[63]

(d) Concentric has provided evidence of significant sums of Canadian capital being used to acquire U.S. Utilities. Between 2001-2024, Concentric observes at least $61 billion in Canadian capital flowing to the U.S. utility markets.[64]

(e) Several Canadian based utilities trade on U.S. centralized exchanges, showing that these companies are competing against U.S. based companies on the same exchanges for capital.[65]

90. The approach taken by all the experts, except for Dr. Cleary, is also consistent with the Board's view in the 2009 Report and that of other Canadian regulators.

91. In the 2009 Report, the Board was among the first regulators in Canada to find that the use of U.S. companies and U.S. data to set the authorized returns for Canadian electric and gas utilities is appropriate. In support of this determination, the Board made a number of findings with regard to the proxy group that remain relevant today, including:

> First, "like" does not mean the "same". The comparable investment standard requires empirical analysis to determine the similarities and differences between rate-regulated entities. It does not require that those entities be "the same".
>
> […]
>
> Second, there was a general presumption held by participants representing ratepayer groups in the consultation that Canadian and U.S. utilities are not comparators, due to differences in the "time value of money, the risk value of money and the tax value of money." In other words, because of these differences, Canadian and U.S. utilities cannot be comparators. The Board disagrees and is of the view that they are indeed comparable, and that only an analytical framework in which to apply judgment and a system of

[63] Exhibit N-M2-12-OEB Staff-19 at p. 2 of 3.
[64] Exhibit N-M2-10-AMPCO/IGUA-5 at p. 3 of 4.
[65] See for example, Fortis Inc.,

> weighting are needed. The analyses of Concentric Energy Advisors and Kathy McShane of Foster Associates Inc. are particularly relevant in this regard, and substantially advance the issue of establishing comparability to meet the requirements of the FRS.[66]

92. Both the BCUC and the AUC have also accepted the use of a North American proxy group comprised of utility companies in both Canada and the U.S. to set authorized ROE for utilities in their jurisdiction.

93. The BCUC explained its rationale for using a North American proxy group as follows:

> For the reasons outlined above, we find the use of the Canadian proxy groups and US proxy groups alone to be inferior to that of using a North American proxy group which has a reasonable mix of both Canadian and US comparators, and the averaging of the results of these three groups to be a poor compromise. On balance, we find that having a proxy group of North American comparators trumps any jurisdictional or structural differences. In making this determination, we rely on the facts that financial and capital markets are highly integrated and that utility regulatory regimes in North America are sufficiently similar for the purpose of establishing a comparable ROE.[67]

94. The BCUC's decision is consistent with Concentric's view, as well as the views of Nexus and LEI, that equity investors and credit analysts consider the utility industry as a North American industry, with Canadian companies competing for capital with similar risk companies in both countries.

95. The AUC also recently developed a set of screening criteria for purposes of selecting a proxy group of companies that could be used to estimate the cost of equity for Alberta's electric and gas utilities.[68]

96. The large majority of companies chosen by the AUC for the comparator group (28 out of 33 companies, or almost 85 percent) were either U.S. electric or U.S. gas

---

[66] 2009 Report at p. 21-23.
[67] British Columbia Utilities Commission, Decision and Order G-236-23, September 5, 2023, p. 16.
[68] AUC Decision 27084-D02-2023, October 9, 2023, at para 99-104.

utilities (or both). In addition, several of the Canadian companies in the AUC's comparator group have significant U.S. operations, including Emera, Fortis, and Algonquin Power. This highlights the extent to which the utility industry has become a North American industry from an investor and allocation of capital viewpoint. Canadian regulators have increasingly accepted the use of U.S. data and proxy groups to estimate the allowed ROE for Canadian regulated utilities. Additionally, the development of a proxy group comprised entirely of Canadian utilities is challenged by the small number of publicly traded utilities in Canada and the fact that several of those Canadian companies derive a significant percentage of revenues and net income from operations other than regulated utility service.

97. As Concentric points out, it is important to consider the comparability of the risk environment between Canadian and U.S. capital markets from an investor's perspective, as risk drives return expectations.[69]

98. Country-specific economic, business and political risk can be measured through a variety of qualitative and quantitative metrics. One such measure, produced by the Economist Intelligence Unit, rates Canada and the U.S. the same from an overall country risk perspective – both countries are rated A.[70]

99. Concentric presented a summary of the country risk ratings for Canada and the U.S. as of August 2021:

	Canada	**U.S.**
Sovereign Risk Rating	A	AA
Currency Risk Rating	A	A
Banking Sector Risk Rating	AA	A
Political Risk Rating	AAA	AA
Economic Structure Risk Rating	A	A
Overall Country Risk Rating	**A**	**A**

[69] Concentric Report at p. 52.
[70] The Economist Intelligence Unit, Country Risk Service, Risk Ratings Review, August 2021, p. 30.

100. This suggests that from a country risk perspective, Canada and the U.S. are directly comparable. This assessment is confirmed in country risk reports from Allianz indicating that both Canada and the U.S. were ranked AA1 as of January 2024.[71]

101. Dr. Cleary advocates for the use of an exclusively Canadian proxy group. The result is that Dr. Cleary's proxy group consists of only five companies. A review of Dr. Cleary's proxy group suggests that his own group does not withstand the criticisms he has of the North American proxy groups used by the other experts.

102. Dr. Cleary's position is that U.S. utilities are unique from their Canadian counterparts and, therefore, are too dissimilar to be considered as peers. Yet, four of his five proxies have significant U.S. operations. Only Hydro One has exclusively Canadian operations:

(a) Algonquin Power & Utilities Corp. – 83% of Algonquin's regulated revenue is from U.S. operations. 10% of its regulated revenue is from Bermuda operations and 4% of its regulated revenue is from Chile. Only 3% of its regulated revenue stems from Canadian operations.[72]

(b) Emera – 64% of Emera's adjusted net income is from its Florida operations. It also has operations in the Caribbean. Only 28% of its adjusted net income is from Canadian operations.[73]

(c) Fortis Inc. – 56% of Fortis' revenue is from its U.S. operations, with only 35% of its revenue from Canadian operations. Fortis operates in five provinces, ten U.S. states and three Caribbean countries.[74]

(d) Canadian Utilities Limited – Canadian Utilities has operations in Canada, Australia, Puerto Rico and Mexico.[75]

---

[71] Source: Country Risk Report Canada (allianz.com) , Country Risk Report United States (allianz.com).
[72] Algonquin Power & Utility Corp 2023 Annual Report, OEA Compendium for Panel 4 at p. 222.
[73] Emera 2023 Annual Report, OEA Compendium for Panel 4 at p. 238.
[74] Fortis Inc. 2023 Annual Report, OEA Compendium for Panel 4 at p. 247.
[75] Canadian Utilities Limited 2023 Annual Report, OEA Compendium for Panel 4 at p. 249.

103. It does not follow that these entities are comparable to Ontario utilities but U.S. utilities are not. A vast majority of these entities' operations are in the U.S. and abroad. It appears that Dr. Cleary's proxy group criteria boils down to where the entity was incorporated. That criterion is arbitrary and sheds little light on whether the entity is comparable to Ontario utilities.

104. As all the other experts in this proceeding agree, proxy groups need to be made up of sufficiently similar companies, and that does not mean identical. The importance of a large enough proxy group to assess ROE results over a variety of similar entities is more important than where that entity was incorporated.

105. There is no reason to change the Board's long-standing methodology of using a North American proxy group. The North American utility industry is integrated in such a way that the perception of U.S. investors is critical to an analysis of Ontario utilities ROE. In order to meet the FRS, the Board must take into account the comparable returns of U.S. participants in the North American utility industry.

B. The Use of Multiple Models Creates the Most Robust Analysis

106. While the cost of equity is a real cost incurred by utilities, it cannot be directly observed in the same way as the cost of debt or preferred stock. Analysts use multiple approaches to estimate the cost of common equity, including the DCF ("Discounted Cash Flow") model, the CAPM ("Capital Asset Pricing Model"), and the Risk Premium model. The required ROE can be estimated using one or more analytical techniques that rely on market-based data to quantify investor expectations, adjusted for certain incremental costs and risks. Quantitative models produce a range of results from which the market-required ROE is determined. A consideration in determining the ROE is to ensure that the methodologies employed reasonably reflect an investor's forward-looking views of financial markets in general, and the subject company (in the context of the proxy groups) in particular.[76]

[76] Concentric Report at p. 55.

107. No financial model can exactly pinpoint the “correct” ROE; rather, each test brings its own perspective and set of inputs that inform the appropriate estimate of the ROE. Although each model brings a different perspective and adds depth to the analysis, each model also has its own inherent limitations and should not be relied upon individually without corroboration from other approaches.[77]

108. All the experts, except for LEI, used a multiple model approach to determining ROE.

109. The OEB specifically supported the use of multiple methodologies to estimate the equity risk premium in the 2009 Report:

> The Board agrees that the use of multiple tests to directly and indirectly estimate the ERP is a superior approach to informing its judgment than reliance on a single methodology. In particular, the Board is concerned that CAPM, as applied by Dr. Booth, does not adequately capture the inverse relationship between the ERP and the long Canada bond yield. As such, the Board does not accept the recommendation that it place overwhelming weight on a CAPM estimate in the determination of the initial ERP.[78]

110. Other Canadian utility regulators, including the AUC and the BCUC, have also recognized the benefits of using multiple methodologies to determine a fair ROE. In particular, the BCUC recently determined that it was appropriate to base the authorized ROE for FortisBC Energy Inc. (a gas distribution utility) and FortisBC Inc. (an electric utility) on an equal weighting of the Multi-Stage DCF model, the CAPM using an average market risk premium, and the U.S. Risk Premium analysis.[79] This is the same approach that Concentric has recommended in this proceeding. As Concentric notes, those models provide a conservative (lower) estimate for Ontario utility ROEs relative to other models and are consistent with models that have been relied on in other

---

[77] Concentric Report at p. 55.
[78] 2009 Report at p, 26.
[79] British Columbia Utilities Commission, Generic Cost of Capital Proceeding (Stage 1), Decision and Order
G-236-23, September 5, 2023, p. 136.

jurisdictions evaluating a generic cost of capital to be applied across industry segments.[80]

111. While LEI has used only the CAPM to support its recommendation to the Board, it readily admits that a multiple model approach has been used by other jurisdictions and is a pragmatic approach:

> MR. RUBY: So, that sounds like a challenge, that all the models have their own flaws. Is a reasonable response to that challenge to estimating ROE to base it on multiple models?
>
> MR. GOULDING: So, I think we have addressed this question various ways, so let me express my preference. So, I believe that the CAPM model is superior and I believe that the best way to address uncertainties is through looking at scenarios within the CAPM model. ***Now, I also acknowledge that a number of regulatory jurisdictions look at multiple models and average them, and that may be a pragmatic approach, I completely agree with you that no one model presents truth and that it's important to welcome at different perspectives.*** I believe the best way to look at those perspectives in an internally consistent way is through CAPM. I also understand that other experts feel differently.[81] [emphasis added]

112. LEI is not critical of the use of multiple models, it simply prefers to rely on the CAPM model. Where three of four experts agree on the use of a multiple model approach, that approach has been accepted by the Board and other Canadian regulators in the past, and the outlier expert agrees it is a “pragmatic approach” the Board should use the approach that provides the most robust analysis.

[80] Concentric Report at p. 9.
[81] Transcript Oral Hearing Volume 1 at pp. 116-117.

C. The Discounted Cash Flow ("DCF") Model

113. The premise underlying the DCF model is that investors value an investment according to the present value of its expected cash flows over time. The standard DCF model is represented by the following equation:[82]

$$P = \frac{D_0(1+g)^1}{(1+r)^1} + \frac{D_1(1+g)^2}{(1+r)^2} + \cdots + \frac{D_{n-1}(1+g)^n}{(1+r)^n}$$

where:

P = the current stock price

g = the dividend growth rate

D_n = the dividend in year n

r = the cost of common equity.

114. There are multiple ways to determine the dividend growth rate. The experts in this proceeding use various methods:

Concentric	Nexus	LEI	Dr. Cleary
multi-stage model[83]	single stage model	single stage model	Sustainable growth model

115. The single-stage model used by both Nexus and LEI (despite LEI ultimately not relying on the DCF model for its recommendation), assumes a constant growth rate in perpetuity. While this is an accepted method, Concentric relied on the multi-stage model to address potential concerns regarding the limiting assumption that growth rates are constant.[84]

116. Dr. Cleary's approach begins with the assumption that earnings per share growth rates provided by analysts are overstated as they include "optimism" bias and are

[82] Concentric Report at p. 57.
[83] Concentric also performed a single-stage, or constant growth, DCF analysis, but conservatively relied on the multi-stage specification for the purposes of forming its recommendation in the proceeding.
[84] Concentric Report at p. 60.

therefore not reliable indicators of actual growth rates.[85] None of the other experts share this view, and Concentric specifically disagrees with this view.[86]

117. Dr. Cleary then deploys a "sustainable growth rate", that he readily admits he received criticism for by other experts.[87]

118. Concentric's multi-stage DCF approach tempers the assumption of constant growth in perpetuity with a three-stage approach based on near-term, transitional and long-term growth rates. The multi-stage DCF model transitions from near-term growth (i.e., the average of Value Line, Zacks, S&P Capital IQ Pro, and Thomson First Call forecasts used in the Constant Growth model) for the first stage (years 1-5) to the long-term forecast of nominal GDP growth for the third stage (year 11 and beyond). The second, or transitional, stage connects near-term growth with long-term growth by changing the growth rate each year on a pro rata basis.[88]

119. The results of each expert's DCF approach are outlined below:

Concentric	Nexus	LEI	Dr. Cleary
9.62%	10.92%	10.77%	7.4%

120. Dr. Cleary's DCF results are clearly an outlier. His significantly lower result is driven, in most part, by his use of a strictly Canadian proxy group containing only 5 companies in determining his growth rate and by use of "sustainable growth rates" that average only 1.80% in perpetuity. Based on Dr. Cleary's projected inflation rate of 2.0%, his 1.80% growth rate would reflect negative on a real basis. As described further above, the use of a Canadian-only proxy group is inconsistent with all the other experts, the 2009 Report and the decisions of other Canadian regulators.

121. If it is accepted that proxy groups can and should contain U.S. entities, and if the Board agrees that sustainable growth rates of less than 2.0% (which implies negative

[85] Cleary Report at p. 32
[86] Concentric Report at p. 59.
[87] Presentation Day Transcript at p. 94.
[88] Concentric Report at pp.60- 61.

real growth once inflation is considered) are not reasonable, Dr. Cleary's DCF results should be disregarded.

D. The Capital Asset Pricing ("CAPM") Model

122. The CAPM is based on the relationship between the required return of a security and the systemic risk of that security. The CAPM is represented by the following equation:

$$[4] \qquad Ke = rf + \beta(rm - rf)$$

where:

Ke = the required ROE for a given security;

β = Beta of an individual security;

rf = the risk-free rate of return; and

rm = the required return for the market as a whole.

i. The Risk-Free Rate

123. All the experts, except for Dr. Cleary, use a forecasted risk-free rate. Concentric uses a forecast of government bond yields from 2025 to 2027 because it reflects the medium-term outlook for government bond yields as central banks continue to focus on bringing inflation down to target levels. Concentric then adds the historical spread between 10- and 30-year government debt.[89]

124. Concentric's position is that a forecast perspective is necessary since the perspective of an equity investor is expectations-based, or forward looking.[90]

[89] Concentric Report at p. 64.
[90] Concentric Report at p. 64.

125. Dr. Cleary uses the long-term government yield as of September 30 as his risk-free rate. This rate is not forward looking and makes no adjustments for expected fluctuations in government yields. Principally this approach is flawed. Equity investors look to the future as they determine their return requirements. Where interest rate environments are expected to change or other macroeconomic factors are anticipated to change government yields, those factors should be considered in a forecasted model. Once again, Dr. Cleary is an outlier in his approach.

ii. Beta

126. According to the theory underlying the CAPM, since unsystematic risk can be diversified away, investors should be concerned only with systematic risk or non-diversifiable risk. Non-diversifiable risk is measured by beta.

127. Below is a summary of each experts' betas:

Concentric	Nexus	LEI	Dr. Cleary
0.81-0.89	0.7	0.69 (avg)	0.45

128. Concentric sources its betas for the Canadian and U.S. proxy group companies from both Value Line and Bloomberg. Value Line publishes the historical beta for each company based on five years of weekly stock returns and uses the New York Stock Exchange as the market index. Bloomberg produces beta estimates based on parameters entered by the user. Concentric computes Bloomberg betas based on five years of weekly stock returns and using the S&P 500 or the S&P/TSX Composite as the market indexes. Both Value Line and Bloomberg compute adjusted betas to compensate for the tendency of beta to revert toward the market mean of 1.0 over time.[91]

129. LEI's CAPM analysis relies on raw, unadjusted betas calculated using daily return data for the past five years. LEI then adjusts these betas for differences in financial leverage between Ontario's utilities and the companies in LEI's various proxy

[91] Concentric Report at p. 66.

groups. Concentric does not agree with LEI's approach to beta, and particularly the use of raw betas. Both Nexus and Concentric used Blume adjusted betas as described below.

130. There are two primary reasons to adjust raw betas. First, empirical studies have provided evidence that an individual company beta is more likely than not to move toward the market mean of 1.0 over time. Second, adjusting beta serves a statistical purpose. Because betas are statistically estimated and have associated error terms, betas greater than 1.0 tend to have positive estimated errors and thus tend to overestimate future returns. Betas below the market average of 1.0 tend to have negative error terms and underestimate future returns. Consequently, it is necessary to adjust forecasted betas toward 1.0 to improve forecasts.[92]

131. As current stock prices reflect expected risk, one must use an expected beta to appropriately reflect investors' expectations. A raw beta reflects only where the stock price has been relative to the market historically and is an inferior proxy for the expected returns when compared to the adjusted beta.[93]

132. The Blume adjusted beta is named after Dr. Marshall Blume who specifically studied four groups of betas, ranging from a very low beta group (averaging 0.50, and similar to the utility industry) to a very high beta group. Dr. Blume found that his adjustment best predicted future betas for each of the four risk groups over the next seven years. Dr. Blume found that a low beta portfolio that averaged 0.50 migrated towards the grand mean of all betas of 1.0 approximately in accordance with the Blume formula. This study provides empirical evidence that betas migrate towards 1.0 and do indeed exceed their long-term unadjusted averages. Given that the CAPM is intended to estimate the forward-looking cost of capital, it is important to reflect a forward view of beta and its tendency to migrate towards the market mean over time, which is not limited to the long-term historical average of the industry beta.[94]

---

[92] Concentric Report at p. 67.
[93] Concentric Report at p. 66.
[94] Concentric Report at p. 67.

133. Dr. Cleary is once again an outlier. Dr. Cleary, unlike any of the other experts, uses a judgmental beta which has no empirical support. Once again, Dr. Cleary dismisses the use of U.S. comparable companies in determining his beta. No other expert takes that approach, and it is inconsistent with the approach taken in the 2009 Report and by other Canadian regulators.

134. Dr. Cleary contends that historical evidence establishes a range of reasonable beta estimates for Canadian utilities with a lower bound of 0.30 and an upper bound of 0.60. Then he recommends, with no explanation, that the Board "make a simple judgment based on current beta estimates".

135. Dr. Cleary reviews the weekly and monthly beta estimates as of December 31, 2023 and over the last seven years. As of December 31, 2023, the weekly and monthly beta estimates were 0.668 and 0.581 respectively. The last year's weekly and monthly beta estimates were 0.658 and 0.513. The average of these 4 betas is 0.60. Despite this, and with his only reasoning being that these figures are too high, Dr. Cleary concludes that he will use his usual estimate of 0.45.[95]

136. Dr. Cleary's results lack rigour and defy observable beta metrics. There is no empirical evidence for the use of a beta of 0.45. The Board should be highly skeptical of Dr. Cleary's use of such a low beta, which lacks empirical support, especially when his own evidence shows that unadjusted betas have increased for utilities in recent years.

iii. The Market Risk Premium ("MRP")

137. Estimates of the MRP generally fall into two categories, ex-post (historical arithmetic average) and ex-ante (forward looking). The historical MRP is based on the arithmetic mean of the equity market returns for large company stocks over the income only return on long-term government bonds. Concentric calculates the ex-post MRP based on data from Kroll (formerly Duff & Phelps). In Canada, Concentric bases historical MRP on return data from 1919-2023, while in the U.S., the historical MRP is calculated using return data from 1926-2023. The forward-looking MRP is calculated by

[95] Cleary Report at p. 92.

subtracting the risk-free rate for each country from the estimated total return for the overall market, as calculated using the DCF methodology for the S&P/TSX Composite Index in Canada and the S&P 500 Index in the U.S.[96]

138. Concentric notes that the U.S. and Canadian economies are highly integrated and capital flows freely across the border, the risk premiums for each country are highly correlated. Accordingly, it is reasonable to derive a single estimate of the MRP for Canada and the U.S.[97]

139. Forward-looking MRPs currently are higher than historical MRPs, reflecting the fact that the historical MRP is based on higher average government bond yields than are available in the current interest rate environment. Noting the substantial difference between the historical and forward market risk premiums, Concentric has relied on the average actual historical MRP for Canada and the U.S. of 6.39 percent in its CAPM analysis. The actual historical MRP may be understated, however, because there is an inverse relationship between interest rates and the MRP, meaning that as interest rates increase (decrease), the MRP decreases (increases). The average 30-year bond yield over the course of the historical periods over which these MRPs were calculated by Kroll was approximately 5.6 percent in Canada and 4.9 percent in the U.S., in contrast to the currently projected 3.5 – 4.1 percent bond yields today. Concentric's use of the actual historical MRP is a conservative (lower) estimate of the market risk premium when interest rates remain below the long-term historical average levels in both Canada and the U.S.[98]

140. LEI also uses a historical market risk premium, based on shorter time periods of 10, 20 and 30 years, in its CAPM analysis, while Nexus uses a forward-looking market risk premium. Dr. Cleary, by contrast, relies on a market risk premium of 5.0% within a range from 4.0% to 6.0%, based on a combination of investor surveys and projected total market returns for Canada and the U.S. less the current risk-free rate. Dr. Cleary, once again, is an outlier in terms of the sources he relies on for his market risk

[96] Concentric Report at p. 69.
[97] Concentric Report at p. 69.
[98] Concentric Report at p. 69-70.

premium, as well as the level of his market risk premium compared to the other experts in this proceeding.

iv. CAPM Results

141. Concentric presents its CAPM results for all proxy groups and on the basis of forward-looking MRP, historical MRP and average MRP. As explained above Concentric relies on the most conservative approach, i.e., the historical MRP to conclude from the CAPM that a 10.18% ROE is appropriate for the North American proxy group.[99]

E. Flotation and Flexibility

142. It is common practice for Canadian regulators to approve an adjustment for flotation costs and financial flexibility, with 50 basis points being the norm. The Board included this adjustment in the 2009 Report. LEI is the only expert who is recommending that the authorized ROE for Ontario's utilities should not be adjusted for flotation costs and financial flexibility.

143. Below is a table which summarizes Canadian regulators treatment of flotation and flexibility costs for investor-owned utilities:[100]

Jurisdiction	Adjustment to ROE
Alberta	50 bps
British Columbia	N/A[101]
New Brunswick	50 bps
Newfoundland and Labrador	50 bps
Nova Scotia	N/A[102]
Ontario	50 bps
Prince Edward Island	50 bps
Quebec	30-40 bps

[99] Concentric Report at p. 70.
[100] See Concentric Report at Figure 20, p. 73.
[101] In the BCUC's most recent decision it stopped its historical practice of a 50 bps flotation cost in the ROE and chose instead to factor floatation costs into an adjustment of the equity ratio.
[102] The 2023 Nova Scotia Power rate application was resolved through a settlement agreement that specified an authorized ROE but did not indicate whether that return included flotation costs and/or financing flexibility.

144. The adjustment for flotation costs compensates the equity holder for the costs associated with the sale of common equity. These costs include actual out-of-pocket expenditures for the preparation, filing, underwriting, legal and the other costs of issuance of common equity. The adjustment further includes the costs of financial flexibility which ensure that there is an adequate cushion to raise equity in challenging capital market conditions. As the purpose of the allowed rate of return in a regulatory proceeding is to estimate the cost of capital the regulated company would incur to raise money in the "primary" markets, an estimate of the returns required by investors in the "secondary" markets must be adjusted for flotation costs in order to provide an estimate of the cost of capital that the regulated company requires. The adjustment also takes into account the need for financial flexibility, meaning that utilities are capital intensive businesses and must be able to access capital markets at all necessary times regardless of conditions or the economy. The adjustment is particularly necessary because authorized ROEs in Canada tend to be lower and Canadian utilities are more thinly capitalized than US utilities.[103]

F. Risk Premium Analysis

145. The Risk Premium approach is the third approach used by Concentric (and all experts but-for LEI rely on a Risk Premium approach) to determine a reasonable ROE. The Risk Premium approach recognizes that equity is riskier than debt because equity investors bear the residual risk associated with ownership. Equity investors, therefore, require a greater return than would a bondholder. The Risk Premium approach estimates the ROE as the sum of the equity risk premium and the yield on a particular class of bonds.[104]

146. The results of each experts Risk Premium approach is represented below (as noted above, LEI does not rely on their Risk Premium approach for their ROE recommendation):

Concentric	Nexus	LEI	Dr. Cleary
9.99	11.09	8.65	7.6

[103] Concentric Report at p. 71.
[104] Concentric Report at p. 74.

147. Concentric's Risk Premium approach is represented by the following equation:

$$ROE = RP + Y \qquad [6]$$

Where:

RP = Risk Premium (difference between allowed ROE and the 30-Year Treasury Yield) and

Y = Applicable bond yield.

148. Concentric relies on authorized returns from a large sample of U.S. electric utilities and U.S. gas distribution companies less the corresponding government bond yield to derive the risk premium. In addition, Concentric conducted a Risk Premium analysis based on authorized returns for Canadian electric and gas utility companies since 2000.

149. This input is where the experts differ on their approach. The table below illustrates each experts' approach to selecting an equity risk premium:

Concentric	Nexus	LEI	Dr. Cleary
Sample of North American electric and gas companies	Sample of US gas and electric companies	Estimates ERP of 5.75%	Estimates ERP of 2.5%

150. Dr. Cleary's entire analysis of a risk premium is re-produced below:

> We now need to determine the appropriate risk premium to add to this. As mentioned, the usual range is 2-5%, with 3.5% being commonly used for average risk companies, and lower values for less risky companies. Given the low risk nature of Canadian regulated utilities, a low risk premium is appropriate, suggesting the use of a 2-3% range, with a best estimate of 2.5%.[105]

[105] Cleary Report at p. 106.

151. The analysis is void of any empirical evidence and like much of Dr. Cleary's opinion is based on unsupported qualitative suppositions to "estimate" an appropriate input figure. Dr. Cleary simply asserts that an appropriate range is 2-5%. Then he simply asserts that 3.5% is commonly used for average risk companies and because Canadian utilities are "low risk" the best estimate is 2.5%. These suppositions and guesses should not be accepted by the Board.

152. The only support Dr. Cleary cites in his expert report for this analysis is an excerpt from the "CFA Curriculum" where "a risk premium of 2.75% is added to cost of IBM's debt" and "[c]learly IBM is riskier than a regulated A-rated utility, so 2.5% is very reasonable by comparison.[106]

153. A cursory review of the supporting document Dr. Cleary cites shows that this is not an actual risk premium being assigned to IBM, but rather taken from a practice question for CFA students from a textbook:[107]

[106] Cleary Report at p. 106, footnote 66.
[107] Attachment AH to the Cleary Report.

EXAMPLE 9 The Cost of Equity of IBM from Two Perspectives

You are valuing the stock of International Business Machines Corporation (NYSE: IBM) as of early August 2013, and you have gathered the following information:

30-year T-bond YTM:	3.70%
IBM 4s of 2042 YTM:	4.43%

The IBM bonds, you note, are investment grade (rated AA– by Standard & Poor's, Aa3 by Moody's Investors Service, and A+ by Fitch). The beta on IBM stock is 0.73. In prior valuations you have used a risk premium of 3 percent in the bond yield plus risk premium approach. However, the estimated beta of IBM has decreased over the past five years. As a matter of judgment, you have decided as a consequence to use a risk premium of 2.75 percent in the bond yield plus risk premium approach.

1. Calculate the cost of equity using the CAPM. Assume that the equity risk premium is 4.20 percent.
2. Calculate the cost of equity using the bond yield plus risk premium approach, with a risk premium of 2.75 percent.
3. Suppose you found that IBM stock, which closed at $195.04 on 31 July 2013, was slightly undervalued based on a DCF valuation using the CAPM cost of equity from Question 1. Does the alternative estimate of the cost of equity from Question 2 support the conclusion based on Question 1?

154. It is obvious that this is not support for the proposition that IBM has a risk premium of 2.75%. It is clearly an example provided to CFA students for use in a practice question.

155. This is further illustrated by a re-production of the same textbook which arbitrarily uses a different risk premium for IBM:

EXAMPLE 2-9 The Cost of Equity of IBM from Two Perspectives

You are valuing the stock of International Business Machines Corporation (NYSE: IBM) as of early September 2007, and you have gathered the following information:

20-year T-bond YTM	5.0%
IBM 8.375s of 2019 YTM	5.632%

The IBM bonds, you note, are investment grade (rated A1 by Standard & Poor's, A+ by Moody's Investors Service, and A by Fitch). The beta on IBM stock is 1.72. In prior valuations you have used a risk premium of 3 percent in the bond yield plus risk premium approach. However, the estimated beta of IBM has increased by more than one-third over the past five years. As a matter of judgment, you have decided as a consequence to use a risk premium of 3.5 percent in the bond yield plus risk premium approach.

1. Calculate the cost of equity using the CAPM. Assume that the equity risk premium is 4.5 percent.
2. Calculate the cost of equity using the bond yield plus risk premium approach, with a risk premium of 3.5 percent.
3. Suppose you found that IBM stock, which closed at 117.43 on 4 September 2007, was slightly undervalued based on a DCF valuation using the CAPM cost of equity from question 1. Does the alternative estimate of the cost of equity from question 2 support the conclusion based on question 1?

156. In this iteration of the textbook, a risk premium of 3.5% was arbitrarily chosen for IBM. When this example was put to Dr. Cleary on cross-examination, he reiterated his support for the use of these figures in his analysis:

> MS. STOTHART: I am just focusing on the risk premium. So, the risk premium they used, do you accept that this 2.75 percent is an example, or do you say that the 2.75 percent is what was IBM's risk premium at this time?
>
> DR. CLEARY: Well, that's what they estimated it was. Whoever prepared this question, which would be a CFA professional, right –
>
> MS. STOTHART: Right.
>
> DR. CLEARY: -- would have said 2.75 seems like an appropriate risk premium at the time.
>
> MS. STOTHART: And that's what you're basing your opinion on?
>
> DR. CLEARY: Yes, I can't say that's exactly what it was, we can never say that with the cost of equity; right?[108]

157. This is an example of the rigour brought to Dr. Cleary's report. He is relying on a figure presented in a textbook as a question for CFA students to support his supposition that an appropriate risk premium is 2.5% for Ontario utilities. This is inappropriate and should be rejected for the purposes of setting the cost of capital for Ontario utilities. Notably, the AUC recently found that, "Dr. Cleary's risk premium of 2.50 per cent is subjective, not supported by any analysis and does not take into account the changing market environment."[109]

G. Conclusion on Recommended ROE

158. As a result of the analyses outlined above, each experts' conclusion on the recommended ROE is shown in the table below:

---

[108] Transcript Oral Hearing Volume 6 at pp. 98-99.
[109] Alberta Utilities Commission, Determination of the Cost of Capital Parameters in 2024 and Beyond, Decision 27084-D02-2023, October 9, 2023, at para. 168.

Concentric	Nexus	LEI	Dr. Cleary
10%[110]	11.08%	8.88%	6.95%

Dr. Cleary's Recommendations are Outliers

159. As outlined above, Dr. Cleary's recommendation, which is clearly an outlier should not be accepted or given any weight for a variety of factors. First, his analysis lacks the rigour required for such a recommendation. He frequently substitutes his own personal judgment in place of market data to determine critical inputs which drive his outlier result. Second, his use of a strictly Canadian proxy group is inconsistent with all of the other experts and Canadian regulators, including the OEB's, most recent views. Ignoring the U.S. market ensures a result that does not meet the Comparable Return Standard because Ontario utilities are competing with these companies, directly or indirectly, for capital.

160. Where Dr. Cleary has testified in regulatory proceedings, his recommendations have never been accepted.[111]

161. Dr. Cleary's evidence is that he views himself as an advocate for consumer groups and a necessary balancing presence. [112] That is not the proper role of an expert. Rather, they are to provide an opinion that is objective and independent and where possible, relies on empirical unbiased market data.

[110] In response to an undertaking request from the Panel, the experts have updated their recommendations. Both Nexus and Concentric found that the updated figures did not materially effect their recommendations.
[111] Dr. Cleary has provided evidence in 10 Canadian regulatory proceedings, including (a) the 2023 EGI rebasing proceedings (EB-2022-0200), (b) the AUC generic cost of capital proceedings in 2013-2014 (Proceeding ID 2191), 2015-2017 (Proceeding ID 20622), 2018 (Proceeding ID 22570), 2019-2020 (Proceeding ID 24110), 2022-2023 (Proceeding ID 20622); (c) the generic regulated rate option proceeding (Proceeding ID 2941) in 2014; the EPCOR Energy Alberta 2018-2021 Energy Price Setting Plan proceeding (Proceeding ID 22357) in 2017; on behalf of the Newfoundland Consumer Advocate in cost of capital hearings in 2015-2016, and in 2018.
[112] Transcript Oral Hearing Volume 6 at pp. 113-114.

162. Dr. Cleary also readily admits that his recommended ROE of 7.05% could have a broad negative impact to the industry's credit ratings resulting in higher financing costs on the sector:

> MR. SARDANA: Sure. So, essentially you are getting there you are getting to the same page I am, then if we were to move to 7.05 percent ROE as the base ROE then the rate impacts that would flow through to utilities' revenue requirements would be a reduction in the equity component of that revenue requirement. So, they would have a lower ask for the equity side, you know, their entire weighted average cost of capital would come down other things remaining equal, that revenue reduction could have a credit rating chill in the sector; would you agree with that or not?
>
> DR. CLEARY: It's possible. And just like a huge increase, if you look at some of the recommended over 11 percent would increase that revenue, of course at the expense of consumers who would be paying higher rates and who knows how that works out to, but it's a possibility, yes.[113]

163. It defies reason that Dr. Cleary recognizes the risk of a credit rating negative reaction (indeed possibly a significant retreat from the Ontario industry) but still recommends the use of a 7.05% base ROE. The conclusion that should be drawn is that Dr. Cleary does not actually believe an ROE that meets the FRS is 7.05%. Rather, given the approach taken by some regulators to average the recommendations of experts, he views his role as dragging down the recommendations of other experts, rather than as proposing a figure that could reasonably be considered to meet the FRS. In addition, while Dr. Cleary suggests that a higher ROE would come at the expense of consumers, Dr. Cleary also neglects to acknowledge that a negative impact or downgrade(s) to a company's credit ratings will also result in additional ratepayer costs, as the downgraded company's access to and cost of funding is also negatively impacted as a result.

[113] Transcript Oral Hearing Volume 6 at pp. 184-185.

164. No other expert believes that Dr. Cleary's recommendations meet the FRS. LEI readily confirmed on cross-examination that they do not believe Dr. Cleary's recommendation meets the FRS:

> MR. SMITH: During the interrogatory process of this proceeding, you were asked about Dr. Cleary and your views of his recommendations and analysis.
>
> MR. GOULDING: Yes, that's correct.
>
> MR. SMITH: And that's the interrogatory that we have on the page, here, on the screen.
>
> MR. GOULDING: Yes.
>
> MR. SMITH: And as I read your interrogatory response, your considered professional judgment is that Dr. Cleary's recommendation of an ROE of 7.05 does not meet the fair return standard?
>
> MR. GOULDING: Yes, that's correct.[114]

165. Nexus also confirmed that Dr. Cleary's evidence falls outside of the confidence intervals it analyzed.[115]

166. No regulator in Canada has accepted Dr. Cleary's evidence. None of the experts in this proceeding agree with Dr. Cleary's evidence with respect to the cost of capital. The Board should do the same and give very little weight, if any, to Dr. Cleary's ROE recommendation in this proceeding. As he readily admits himself, his recommendation may cause a broad negative impact to the industry's credit ratings resulting in higher financing costs to the industry. This is particularly important because it comes at a time when Ontario utilities need to make significant capital investments to achieve the policy goals of the Energy Transition. Where all the other experts recommend an increase to the current ROE to meet the FRS,[116] such a significant drop as recommended by Dr.

---

[114] Transcript Oral Hearing Volume 1 at p. 88.
[115] Transcript Oral Hearing Volume 4 at p. 142.
[116] Assuming the 50bp for floatation costs is added back into the LEI ROE.

Cleary would be harmful to both customers and shareholders and ensure that the FRS would not be met for Ontario utilities.

167. Dr. Cleary's proposed ROE of 7.05% is a clear outlier from the other experts' recommendations in this proceeding, as well as across North America. If the OEB were to accept Dr. Cleary's proposals to reduce the base ROE to 7.05% (and reduce Hydro One's and Enbridge Gas's equity ratios to 36%), that would have a significant negative impact on all Ontario utilities in terms of access to capital on reasonable terms, and it would increase the business and financial risks of the utilities. Access to capital would be harmed because a 7.05% ROE is not reflective of the return required by investors in investments of similar risk, and so capital would likely be deployed elsewhere and/or come at a higher cost to Ontario utilities.

168. In terms of business risk, Dr. Cleary's recommendations, if adopted, would reflect a sharp increase in regulatory risk, a key element of the risk assessments performed by credit ratings agencies. Financial risk would also sharply increase, as a reduction of over 200 basis points in ROEs would significantly reduce utility cash flows. This would likely cause a series of negative outlooks and ensuing credit downgrades. It is hard to imagine such a decision coming at a worse time for the Ontario utility industry due to the current inflection point caused by the Energy Transition, bringing with it elevated and sustained levels of required capital.

169. Dr. Cleary's recommendations clearly fail the FRS. For investor-owned utilities, the adoption of Dr. Cleary's ROE recommendation would constrain the growth prospects of Ontario's utilities. Projected EPS growth rates would likely be reduced by equity analysts, meaning that Ontario utilities might need to pay a higher dividend to continue attracting sufficient capital to maintain the status quo. Also, it is reasonable to expect that there would be limited-to-no discretionary or policy-oriented capital investment, which would jeopardize the policy goals of the Energy Transition in the province.

H. The Ontario ROE Formula

170. Concentric concludes that the existing methodology (i.e., the current OEB formula) has generally produced a return on equity that is consistent with returns for electric and gas utilities elsewhere in Canada. The ROE produced by the formula, however, is substantially lower than authorized returns for comparable risk electric and gas utilities in the U.S. and lower than the results of traditional models used to estimate ROE such as the DCF and CAPM. Figure 28 and Figure 29 of Concentric's report compare the returns produced by the Ontario formula to returns for other Canadian and U.S. electric and gas utilities from 2009-2024 YTD.[117]

171. In Concentric's view, the current formula return of 9.21 percent in Ontario (adjusted to 9.25 in the OEB's Cost of Parameters update on October 31, 2024) has diverged from what is considered a fair return for comparable risk companies. To correct this divergence, Concentric recommends that the Board start by re-setting the base ROE to reflect current market conditions.[118]

172. As to what has caused this divergence in the OEB formula since it was last modified in 2009, Concentric's view is that a fair return depends on more than just changes in government bond yields and utility credit spreads. While those are important factors in determining equity costs for utilities, there are other key elements that are not captured by the OEB formula. For example, betas (both raw and adjusted) have increased substantially for electric and gas utilities since January 2020. This indicates that regulated utilities are no longer perceived by investors as having well below average market risk. Utility betas have been in the range of 0.80 to 0.90 percent since early 2020, as compared to the historical average level of 0.60 to 0.70 in the preceding 10 years, notwithstanding the increase observed in 2009 in the wake of the Great Recession. This shift in utility risk is not reflected in the Ontario formula, which highlights

[117] Concentric Report at p. 85.
[118] Concentric Report at p. 86.

the importance of periodic reviews of the formula to ensure that it continues to produce a fair return.[119]

173. Another important consideration is how the OEB formula return compares to authorized ROEs for other regulated utilities in Canada and the U.S. Concentric's analysis demonstrates that the OEB formula has produced a comparable return for Ontario's electric and gas utilities to the average equity return for Canadian electric and gas utilities in most years since the formula was modified in 2009. The exception is during periods of very low interest rates in 2020-2022 when the COVID-19 pandemic caused central banks in Canada and around the globe to reduce short-term interest rates to near zero and to engage in purchases of government and corporate bonds in order to support the stability of financial markets and stimulate the economy. Because the OEB formula is tied to bond yields, the formula return declined during these years even though the risk premium for equity investors increased substantially during this period. Lower government bond yields were not an indication that equity costs had fallen; on the contrary, equity investors were requiring a higher risk premium to offset the incremental risk of economic uncertainty. Under the OEB's rate plans, utilities are typically locked-in to the formula rate determined in the year of rebasing, so an unfair return can endure for up to five years.[120] Importantly, and further demonstrating the outlier status of Dr. Cleary's recommended ROE formula, his formula, when "backcast" over the preceding 15 years, would have returned ROEs as low as 5.68% in 2021 and only 7.79% in 2009 as compared to the OEB approved ROE of 9.75%.[121]

174. The returns produced by the OEB formula are substantially lower than those for U.S. companies of comparable risk. This is important because Ontario's utilities must compete with other Canadian and U.S. companies to attract capital and to meet the Comparable Return Standard. Market data indicate that the cost of capital has

[119] Concentric Report at pp. 86-87.
[120] Concentric Report at p. 87.
[121] Exhibit K 2.4; Undertaking J 2.3.

increased for all North American utilities, including those in Ontario since the Board last examined this issue.[122]

175. Concentric therefore recommends that certain parameters of the Ontario ERP-based formula be modified to ensure that the formula provides a fair return for regulated utilities when government bond yields disconnect from equity investors' return requirements. This occurs infrequently, but history has shown over the past 15 years that when it does occur, the OEB formula tends to produce a return that is lower than what the ROE estimates would be using traditional financial models such as the DCF and CAPM. For example, the OEB formula return of 8.34 percent in 2021 was well below the average authorized ROE for other Canadian and U.S. utilities. In addition, it is very important that the Board periodically review the formula return because the cost of equity depends on factors other than government bond yields and utility credit spreads.[123]

176. Concentric's recommendations with respect to the ROE formula are:

(a) Re-base the authorized ROE to 10.0 percent;

(b) Should OPG propose and provide evidence for an ROE risk premium applicable to its pure-play regulated generation operation in its payment amounts application, the OEB consider that proposal as part of that proceeding;

(c) Adopt the AUC's methodology for setting the LCBF. Specifically, Concentric recommends that the LCBF be computed based on a weighted average of the projected 30-year GOC bond yield for the subsequent year as reported by RBC, TD Bank, and Scotia Bank (assigned 75% weight) and the current average 30-year GOC yield for the 90 days ending September 30 of each year (assigned 25% weight);

[122] Concentric Report at p. 87.
[123] Concentric Report at pp. 87-88.

(d) Update the average credit spread between the 30-year GOC bond yield and the A-rated utility bond yield as of September 30, based on a 90-day average;

(e) Update the LCBF adjustment factor from 0.50 to 0.40;

(f) Update the utility credit spread adjustment factor from 0.50 to 0.33.[124]

177. Below is a summary of Concentric's recommendations.

i. Resetting the Base ROE in the Formula

178. As explained above, Concentric's evidence demonstrates that there has been an increase to the cost of equity and the business and financial risk of Ontario regulated utilities since the OEB's 2009 Report as a result of changes in capital markets and the fundamental shift brought to the industry by the Energy Transition. Consequently, Concentric's view is that it is essential for the OEB to reset the base ROE and the deemed equity ratios for Ontario's electric and gas utilities to meet the FRS. This is an important prerequisite to establishing a formula that produces ROEs that consistently meet the Fair Return Standard in 2025 and beyond. Based on Concentric's analysis as discussed previously, the authorized ROE should be rebased at 10.0 percent.[125]

179. As previously recognized by the Board through the use of a higher equity ratio, OPG faces a different and greater level of risk compared to distributors and transmitters. As such, the base ROE recommendation of 10.0 percent understates the ROE needed to meet the Fair Return Standard for OPG. There are also no direct comparators in the proxy groups analyzed by Concentric for OPG's pure-play rate-regulated generation operations. As such, Concentric recommends that should OPG provide a proposal and evidence in its payment amounts application regarding whether and what amount of additional risk premium should be applied to set its authorized ROE, the OEB should consider that proposal as part of that proceeding.[126]

---

[124] Concentric Report at p. 103.
[125] Concentric Report at pp. 89-90.
[126] Concentric Report at p. 90.

ii. Ontario Formula Parameters

180. The current OEB formula is expressed as:

$$ROE_t = BaseROE + 0.5 \times (LCBF_t - BaseLCBF) + 0.5 \times (UtilBondSpread_t - BaseUtilBondSpread)$$

181. And it was implemented with the following starting values:

$$ROE_t = 9.75\% + 0.5 \times (LCBF_t - 4.25\%) + 0.5 \times (UtilBondSpread_t - 1.415\%)$$

182. As shown above, the current formula is based on an ROE of 9.75 percent, a 30-year bond yield forecast of 4.25 percent, which includes the 10-year bond yield forecast from Consensus Economics and the average spread between 10- and 30-year government bond yields, and a utility credit spread of 1.415 percent. Each year the OEB compares the current bond yield forecast and utility credit spread in September against the historical parameters and adjusts the authorized ROE accordingly.

183. The OEB examined its formulaic approach in 2016 and concluded at that time that the cost of capital policy had worked as intended, that movement in the parameters had followed macroeconomic trends and activity, and that the approach had not resulted in excessive or anomalous volatility.[127]

184. The Ontario formula, however, began to produce returns that deviated from authorized returns elsewhere in Canada and the U.S. as yields on Canadian government bonds declined to historically low levels in 2020-2021. Because the Ontario formula is tied solely to changes in government bond yields and utility credit spreads, it did not reflect the uncertainty and volatility in capital markets that impacted equity investors more than debt investors. For example, the OEB's formula return in 2020 was 8.52 percent (or 20 basis points below the average authorized ROE for electric distribution companies in Canada) and 8.34 percent in 2021 (the lowest authorized ROE

[127] OEB Staff Report, EB-2009-0084, January 14, 2016, p. 1.

in Canada and 36 basis points lower than the average for electric distributors in Canada). As previously noted, these returns can last in rate plans for up to five years.[128]

185. At the time of Concentric's analysis, the 10-year bond had a higher yield than the 30-year bond, which is known as an inversion of the yield curve. The coefficient of variation ("**CV**") is a relative measure of variability. The spread between 10- and 30-year government bonds has the highest CV among the OEB's parameters, at 70.94 percent. Because of its high CV, there is some question as to whether the formula is providing a reasonable return to equity investors during years in which the 10/30 spread deviates significantly from the long-term average of around 0.40 percent. It is not sustainable for short-term bonds to have higher yields than long-term bonds. The use of a long-term average yield spread in such years could help to smooth out short-term aberrations that are not representative of capital costs over the long-term. Alternatively, the OEB could consider other sources that provide a forecast of the 30-year government bond yield, as LEI has recommended.[129]

186. Another concern is that the 10-year government bond forecast fell below 2.0 percent from 2020- 2022, due to the extraordinary policy accommodation of Central Banks in Canada and around the world in response to the COVID-19 pandemic, which in turn drove down interest rates on government debt. Although bond yields were near historically low levels, the risk for equity investors increased substantially as shown by extreme market volatility and higher risk premiums.[130]

187. The utility credit spread over government bond yields has the lowest CV of the parameters from 2010-2023 and provides an indicator of utility risk from the perspective of a debt investor that serves as a proxy for changes in utility equity risk. This was an important modification to the OEB formula in the 2009 proceeding and has helped to improve the performance of the adjustment mechanism in terms of its ability to track returns for comparable utilities in other Canadian jurisdictions.

[128] Concentric Report at p. 93.
[129] Concentric Report at p. 93.
[130] Concentric Report at p. 94.

(i) Risk Free Rate – Base LCBF

188. The Ontario formula uses a 10-year bond yield forecast published by Consensus Economics in September of each year. The base LCBF is based on an average of the 3-month and 12-month forecast yield on the 10-year government of Canada bond. Consensus Economics does not publish a forecast for the 30-year Long Canada Bond Yield. Therefore, the average spread between 10- and 30-year government bond yields during the month of September is added to the 10-year bond yield forecast. This is a potential area of concern due to the recent inversion of the 10/30 yield spread (as discussed above). The 10/30 spread moved negative in April 2022 as the Bank of Canada engaged in more restrictive monetary policy, causing short-term bond yields to exceed longer term bond yields. This relationship is not normal (long-term bond yields are typically higher than short-term yields), and the inversion caused the OEB formula ROE to decline in certain years even as longer-term interest rates increased substantially. As discussed above, the 10/30 spread has the highest CV of any formula parameter, indicating the greatest amount of relative variability, and therefore the use of the spread from only one month can lead to unreliable results.

189. There are several possible ways to address this shortcoming. The first is to use the long-term average spread between 10- and 30- year government bonds whenever the 10/30 yield spread is inverted. Over the long term, the average yield spread has been approximately 40 basis points in Canada. Concentric's view is that it is not reasonable to use a negative spread in the ROE formula because that is not the normal relationship between 10- and 30-year bonds. The second approach is to use a 30- year bond yield forecast, which is the method recently adopted by the AUC in October 2023 and that was recommended by LEI in this proceeding. The base LCBF in the new AUC formula is based on an average of the forecast of the quarterly 30-year GOC bond yield for each of the four quarters in the coming year from three Canadian investment banks – RBC, TD Bank, and Scotia Bank – which receives a 75% weight, and the current 90-day average 30-year GOC bond yield, which receives a 25% weight. Concentric prefers

this latter approach. Based on the most recent information available as of May 31, 2024, using the Alberta methodology, the LCBF would be set at 3.36 percent.[131]

190. With respect to the source of the LCBF, Concentric agrees with LEI that it is preferable to move to a forecast of the 30-year government bond. LEI has identified six major Canadian banks that provide interest rate forecasts, while Concentric has relied on the average of the three Canadian banks used by the AUC in its recently adopted formula. Concentric agrees with LEI that a 30-year government bond forecast is preferable to the current forecast of the 10-year government bond plus the 10/30 spread, although Concentric believes it is also appropriate to give weight to the current average GOC 30-year bond yield.[132]

(ii) Long Canada Bond Yield Adjustment Factor

191. The OEB formula uses an Adjustment Factor for the LCBF to estimate the relationship between changes in the utility cost of equity and changes in the LCBF. Currently, the LCBF Adjustment Factor is set at 0.50, implying that for every 100 bps increase (or decrease) in the LCBF, it is reasonable to expect a 50 bps increase (or decrease) in the utility cost of equity. Accordingly, the OEB formula incorporates this relationship by adding 0.50 times the change in the LCBF, relative to the base LCBF, to the base ROE.[133]

192. Although the positive correlation between the utility cost of equity and LCBF has been historically well-noted, the strength of the relationship has weakened over time. This may be attributable to a partial decoupling of the relationship as bond yields were driven increasingly lower by central bank policy, increased reliance on multi-model approaches by experts and regulators, and policies of “gradualism” adopted by regulators in response to market volatility. To reflect these trends, Concentric has estimated an updated relationship between the cost of equity and long bonds and

[131] Concentric Report at p. 95.
[132] Concentric Report at p. 104.
[133] Concentric Report at p. 95.

recommends lowering the Adjustment Factor for the LCBF from 0.50 to 0.40, based on a multivariate regression analysis covered in more detail below.[134]

(iii) Base Utility Credit Spread

193. The utility bond spread was the main improvement to the Ontario formula in 2009 after the OEB became concerned that the formula was not providing a fair return during a period of very low government bond yields during and after the financial crisis of 2008/09. Because government bond yields do not reflect the industry risk of regulated utilities, it is beneficial to include the spread between government and utility bonds. Indeed, the California Public Utilities Commission only considers the utility bond yield and does not include government bonds in its ROE formula.[135]

194. The current utility credit spread in the OEB formula is 1.415 percent. The long-term average utility credit spread since 2009 has been 1.493 percent. The 90-day average spread as of May 31, 2024, was 1.371 percent between the 30-year GOC bond yield and the A-rated Canadian utility bond yield. Concentric recommends that this spread be based on the 90-day average ending in September 2024, adding two additional months to the OEB's current approach to ensure that the observed spread is not too heavily influenced by recent events in the economy or capital markets.[136]

195. An additional consideration is that not all Ontario utilities have an A-rating. At this time, Concentric is not recommending an adjustment to the credit spread (it would be wider), but this is an issue the Board should monitor for affected utilities. If the A and Baa/BBB+ bond spreads differ, the Board could average them or differentiate the resulting formula ROE separately for the A and sub A rated utilities.[137] In the event that a utility is no longer A rated, the utility should have the ability to propose an adjustment to the ROE formula which would go from an A spread to a BBB spread.

---

[134] Concentric Report at p. 96.
[135] Concentric Report at p. 96.
[136] Concentric Report at p. 96.
[137] Concentric Report at pp. 96-97.

(iv) Utility Credit Spread Adjustment Factor

196. The adjustment factor for the utility credit spread in Ontario is currently set at 0.50 times the change from the base utility credit spread to the current utility credit spread. Similar to the adjustment factor for the LCBF, setting the adjustment factor at 0.50 times implies that for every 100-bps increase (or decrease) in the utility credit spread, it is reasonable to expect an approximately 50-bps increase (or decrease) in the utility cost of equity. Accordingly, the OEB formula incorporates this relationship by adding 0.50 times the change in the utility credit spread, relative to the base utility credit spread, to the base ROE.[138]

197. To determine updated adjustment factors for both the LCBF and utility credit spread, Concentric ran a multivariate regression analysis using historical data between January 1, 1993 and May 31, 2024. The regression tested U.S. authorized ROEs for electric and gas utilities, as the dependent variable, against both U.S. government bond yields and utility credit spreads as the independent variables.[139]

198. The regression yielded a government bond yield coefficient of 0.3984 and a utility credit spread coefficient of 0.3340, with an R-squared of 0.5445. Based on this analysis, Concentric recommends lowering the LCBF adjustment factor from 0.50 to 0.40 and the utility credit spread adjustment factor from 0.50 to 0.33. These changes recognize that the relationship between ROEs and government bond yields has weakened slightly over the past fifteen years, while still maintaining the formula's ability to be sufficiently sensitive to changes in interest rates and utility credit spreads.[140]

199. LEI recommends a 0.26 LCBF adjustment factor and a 0.13 utility credit spread adjustment factor based on a multivariate regression analysis considering both government and corporate bond yields. Concentric found the following flaws in LEI's analysis:

---

[138] Concentric Report at p. 97.
[139] Concentric Report at p. 98.
[140] Concentric Report at p. 98.

(a) The LEI regression considers BBB-rated corporate bond yields rather than A-rated utility bond yields;

(b) The LEI regression considers the absolute level of corporate bond yields rather than spreads over government bond yields;

(c) As such, LEI's multivariate regression suffers from multicollinearity issues, in which the two independent variables are highly correlated, leading to results that are imprecise and subject to large volatility if presented with small variations in input data.[141]

200. In part due to lower multicollinearity issues, Concentric's analysis yielded higher t-stats, indicating greater statistical confidence in the recommended coefficients, as well as tighter 95% confidence intervals for the coefficients, and a significantly greater F statistic indicating a more robust specification of the relationships. Due to these factors, Concentric's approach produced a more reliable result than LEI's analysis.[142]

201. While Concentric agrees with LEI that coefficients have come down since 2009, its regression analysis estimates indicate LEI's recommended adjustment factors are too low. Instead, Concentric recommends the OEB set adjustment factors at 0.40 for the LCBF and 0.33 for the utility credit spread, which recognizes the lower empirical relationship between ROEs and bond yields compared to previous years, while still maintaining the formula's sensitivity to changes in interest rates and utility credit spreads.[143]

202. Dr. Cleary recommends that the existing adjustment factors be increased from 0.50 to 0.75 based purely on the assertion that the 0.75 is "more responsive to changing market conditions" but he provides no analysis of whether that responsiveness is consistent with investor expectations or regulator actions. As such, Dr. Cleary's recommended changes to the adjustment factors should be ignored.

[141] Concentric Report at p. 105.
[142] Concentric Report at p. 105.
[143] Concentric Report at p. 105.

Capital Structure and Risk Assessment (Issues 11-13)

Issue #11 Are the perspectives of debt and equity investors in the utility sector relevant to the setting of cost of capital parameters and capital structure? If yes, what are the perspectives relevant to that consideration, and how should those perspectives be taken into account for setting cost of capital parameters and capital structure?

Issue #12 How should the capital structure be set for electricity transmitters, electricity distributors, natural gas utilities, and OPG to reflect the FRS?

203. In answering these questions, Concentric addresses four main questions:

(a) Is the OEB's risk ranking of jurisdictional utilities, which has gas distributors at the lower end of the risk spectrum, electric distributors and transmitters in the middle, and OPG at the higher end of the risk spectrum, reflective of current industry business and financial risks?

(b) Are Ontario equity thicknesses reasonably consistent with industry peers?

(c) Does the OEB's approach to determining capital structures continue to be a reasonable approach for rate-making purposes? and

(d) Is a different equity thickness warranted for single versus multiple asset transmitters?

A. Concentric's Jurisdictional Risk Review

204. In its report, Concentric has provided a detailed analysis of risk both by jurisdiction and industry. This review included a variety of risks including, climate risk, energy transition risk, cyber security risk and regulatory risk.[144]

205. Concentric's findings are briefly summarized below.

i. Ontario's Regulatory Risk versus the Proxy Groups

206. To evaluate the comparability of the North American proxy groups, Concentric examined the regulatory and financial risks of the North American proxy group

[144] Concentric Report at pp. 111-134.

companies relative to those of typical Ontario electric and gas utilities to determine whether any adjustments should be made to account for differences in regulatory and financial risk between the North American proxy groups and Ontario's utilities.[145]

207. In general, Concentric found that the operating utilities held by the North American proxy groups have cost recovery mechanisms and adjustment clauses that mitigate certain business and financial risks of a regulated utility. Concentric also observed that as a pure-play generation utility, OPG's business risk is not entirely reflected in the North American proxy groups. Concentric then examined the comparability of the groups across the following criteria, credit rating, test year convention, fuel price risk, volumetric risk, and capital cost recovery.[146]

208. Concentric concluded that the aggregate business risk profiles of the North American proxy groups reflect similar risk to the Ontario electric and gas utilities, other than OPG. These Ontario utilities are closely aligned with the North American proxy groups in terms of commodity price risk and the use of infrastructure recovery mechanisms such as riders and capital trackers. Concentric also found a comparable level of regulatory protection for mitigating regulatory lag through the use of DVAs. In addition, several of the Ontario utilities are exposed to fluctuations in throughput due to changes in load or loss of customers, while more than 60 percent of the North American proxy group utilities are protected from volumetric risk through decoupling mechanisms.[147]

ii. Ontario's Financial Risk versus the Proxy Groups

209. Financial risk is assessed in terms of capital structure, credit rating, credit metrics, and authorized return (capital structure and authorized return span both major risk areas, i.e., regulatory and financial risk). Ontario's electric transmission and distribution utilities have similar deemed equity ratios as other electric utilities in Canada but substantially lower equity ratios than their U.S. counterparts. Ontario's gas

[145] Concentric Report at p. 125.
[146] Concentric Report at pp. 126-127.
[147] Concentric Report at p. 127.

distributors have somewhat lower deemed equity ratios than other gas distribution companies in Canada and substantially lower equity ratios than their U.S. peers. On that basis and as further discussed below, Concentric found that Ontario's electric and gas utilities have higher financial risk than the North American proxy groups.[148]

210. Under the Fair Return Standard, the rate of return must be sufficient to enable regulated utilities to maintain financial soundness and to attract capital on reasonable terms. The utility industry is capital intensive, and companies require sufficient financial strength (i.e., sufficient equity) to access capital under a variety of economic and capital market conditions. As explained below, Ontario utilities' deemed equity ratios are below their North American peers and therefore, an increase in the deemed equity ratio for Ontario's utilities is necessary to bring the financial risk of Ontario's utilities more in line with their North American peers and meet the FRS.[149]

B. Concentric's Sector Specific Risk Assessments

211. Utilities operating within each sector (electric distribution and transmission, natural gas distribution, electric generation) in the utility industry experience increasingly idiosyncratic challenges, which are considered by equity and debt investors in their capital allocation decisions.

i. Electric Distribution Utilities

212. Ontario electricity distributors' deemed capital structures are currently comprised of 40 percent equity, 56 percent long-term debt, and 4 percent short-term debt. As further discussed below, the electricity distributors' equity ratios fall below those of their North American peers.[150]

213. In the evolving environment of the Energy Transition and grid modernization, key risk factors for electric distribution utilities relate to forecasting, technological changes, performance expectations (both reliability and resilience), changing business models, and unanticipated capital expenditure risk. Growth of capital spending to meet

[148] Concentric Report at p. 128.
[149] Concentric Report at p. 129.
[150] Concentric Report at pp. 129-130.

increasing demand (such as that anticipated due to the Energy Transition) will put additional pressures on electric distributors' financial results and the perception of risk by both equity investors and credit rating agencies. A fair return on equity and reasonable deemed capital structure will ensure that distributors are able to attract equity and debt investment on reasonable terms amid growing capital needs to meet demand and improve resilience and reliability.[151]

ii. Electric Transmission Utilities

214. Ontario electricity transmitters' deemed capital structures are currently the same as electricity distributors. As further discussed below, the electricity transmitters' equity ratios also fall below those of their North American peers.

215. Electric transmitter utilities' key risk factors relate to supply chain constraints, project development and permitting, the incurrence of large capital deferrals upon which only a debt return is accrued as a carrying charge under the current regulatory framework, operating across a large province with the potential for harsh weather conditions, and the forecasting of volumes. Increasing demand for electric transmission driven by customers and jurisdictional policy adds pressure for transmission utilities not only to attract capital but also to compete for limited supply chain resources for project construction.[152]

216. Transmission assets involve a lengthy timeline from conception to operation and are vulnerable to unforeseen cost and time overruns that may not be in the utilities' control. Wildfires and other unforeseeable circumstances (e.g. the COVID-19 pandemic) have impacted utilities' abilities to meet target timelines and project budgets. Moreover, Concentric observed recent proceedings where intervenors have opposed full recovery of costs incurred by a transmitter required to continue construction of transmission assets during unforeseeable circumstances (e.g. COVID-19) resulting in a settlement reflecting a material reduction in recoverable costs. Such precedents increase the

[151] Concentric Report at p. 130: See also Concentric Report Appendix B for a detailed summary of business and financial risks related to electric distribution utilities.
[152] Concentric Report at p. 130.

perception of future risk for investors as they evaluate return requirements on future investments.[153]

iii. Electric Generation Utilities

217. OPG is the only regulated electric generation company in Ontario and the only pure-play generation utility in North America. OPG has a deemed equity ratio of 45%.

218. Given OPG's status, it is not possible to find companies that are similar to OPG in terms of business and financial risk. OPG's regulated business operates a mix of hydro and nuclear generation facilities that provide approximately one-half of the Province of Ontario's generation supply.

219. In addition to being exposed to significant volumetric revenue risk and plant operating risk, key risk factors facing OPG relate to large, upfront capital investments and complex generation plant projects that are being undertaken to meet increasing electricity demand and support Energy Transition-related government policy objectives over the next several decades. These projects include the completion of the Darlington Refurbishment Project, the planned refurbishment of four reactors at the Pickering Nuclear Generating Station, investments in Darlington small modular reactors ("**SMRs**"), and several large hydroelectric refurbishment programs. At least in the near term, OPG is expected to undertake these projects while facing increased operating and revenue concentration risk within its nuclear operations, which would consist solely of the Darlington Nuclear Generating Station while the Pickering reactors are shut down and the Darlington SMRs are under construction. OPG's financial risk is also heightened since large capital expenditures accrue a debt-only return as a carrying charge during construction under the current regulatory framework, and from heightened competition and constraints related to specialized supply chain and labour resources.[154]

220. OPG's unique business model and higher-risk, first-of-a-kind investments and heightened project construction risk increase the utility's overall risk profile relative to its

[153] Concentric Report at pp. 130-131; See also Concentric Report Appendix B for a detailed summary of business and financial risks related to this sector.
[154] Concentric Report at pp. 131-132.

transmission and distribution utility peers and require higher returns to attract sufficient capital. They also place OPG in a class by itself, whereby not only is its equity ratio lower than North American vertically-integrated utilities (which also have transmission and distribution operations), but also the peer groups used to establish the ROE understate returns for riskier generation-only operations. These factors are further amplified by the advent of the Energy Transition, whereby OPG is increasingly focused on, and requires significant capital for, new generation development. For those reasons, Concentric is also recommending that should OPG bring forward a proposal and evidence in its payment amounts application regarding whether and what amount of additional risk premium should be applied as part of OPG's authorized ROE, the OEB should consider that proposal at its discretion at that point in time. The approach to distinguishing risk by adjusting equity ratio and ROE has been adopted in British Columbia and Quebec to ensure relative risk across peers is properly reflected and this is essentially the approach Concentric recommends for OPG.[155]

iv. Gas Distribution Utilities

221. Enbridge Gas's capital structure is comprised of 38 percent equity and 62 percent debt. Like Ontario's other utility segments, Enbridge Gas's equity ratio falls well below those of its North American peers, even after the increase in equity ratio authorized by the Board in 2023.

222. Natural gas distributors are facing increased operational and business risk, primarily due to the challenges and uncertainties in their business models amid the Energy Transition. Alternative gas suppliers and increased competition from electricity (i.e. the Energy Transition) have combined to increase the natural gas distributors' volumetric risk, while increased complexities of project permitting, execution, and cost recovery create new challenges that depend on supportive regulation by the OEB and active management of changing asset life cycles through depreciation practices. From a financial perspective, as volume sales decline, natural gas distributors will see a decline in their credit metrics and financial positions. Declining financial positions will further

[155] Concentric Report at pp. 132; See also Concentric Report Appendix B for a detailed summary of business and financial risks related to this sector.

heighten the risk for natural gas distributors and their current and potential investors. For example, S&P Global has already changed its target credit metrics for at least one U.S. gas utility due to increased exposure to Energy Transition risks. In May 2023, S&P Global revised the standalone FFO-to-debt threshold for Southern California Gas, below which it would consider downgrading SoCalGas' credit rating, from 18 percent to 20 percent.[156] A very current example, and subsequent to the OEB's Decision in respect of Phase 1 of the Enbridge Gas Rebasing Application, is the placement of Enbridge Gas on a negative outlook by the S&P Global update of June 28, 2024.[157]

223. Higher risks associated with elevated operational and business challenges in the short-term by experimentation with and adoption of alternative fuels to longer-term uncertainty regarding business viability, will require higher returns from investors. Support from regulators in their authorized cost of capital and equity thickness will ameliorate some of the current financial risks faced by natural gas distributors and will provide investors and rating agencies assurance that heightened risk is properly accounted for in equity and debt returns.[158]

C. Analysis of Comparative Equity Ratios

224. The deemed equity ratios for Ontario's regulated electric distribution and transmission utilities are generally in line with the average equity ratios for their Canadian counterparts but well below the average level for U.S. electric and gas utilities. OPG has no direct peers, but it also falls below the average equity thickness levels for U.S. electric and gas utilities, despite its elevated level of risk.

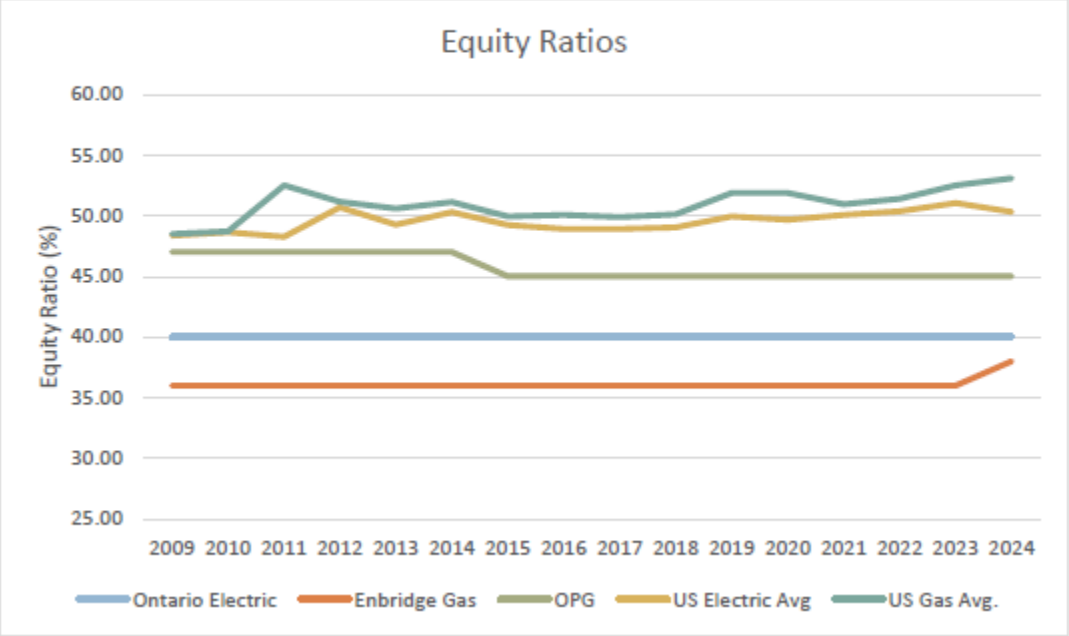
225. Figure 27 of Concentric's report shows that the deemed equity ratio for Enbridge Gas of 38 percent is slightly below the Canadian gas LDC average of 39.9 percent (which includes the BCUC's recent increase to FortisBC Energy Inc.'s deemed equity ratio from 38.5 percent to 45.0 percent due primarily to risks associated with Energy Transition) and significantly lower than the U.S. average of slightly more than 52

[156] Concentric Report at pp. 132-133.
[157] Exhibit N-M2-11-CME-10, Attachment 1,
[158] Concentric Report at pp. 133; See also Concentric Report Appendix B for a detailed summary of business and financial risks related to this sector.

percent. At 38 percent, the deemed equity ratio for Enbridge Gas is also below that of all electric distributors in Ontario which have a deemed equity ratio of 40 percent. It is also noteworthy that this difference is reversed in the U.S. where the average actual and deemed equity ratios for U.S. Gas utilities is higher than those applicable to U.S. Electric utilities (see Figure 36). This reversal is also the case in British Columbia.[159] This gap in equity ratios with the U.S. means that Ontario's regulated utilities have substantially greater financial risk than their U.S. counterparts.[160]

226. The figure below shows the average deemed equity ratio for Ontario's electric and gas utilities compared to the Canadian and U.S. averages since 2009.[161] The figure demonstrates that the deemed equity ratios for Ontario's electric and gas utilities are generally consistent with to slightly lower than their Canadian peers and well below their U.S. peers.

Figure 35: Deemed Equity Ratio in Ontario Compared to Canadian and US Averages – 2009-2024



[159] British Columbia Utilities Commission, Generic Cost of Capital Proceeding (Stage 1), Decision and Order G-236-23, September 5, 2023.
[160] Concentric Report at p. 134.
[161] This figure was also provided as Exhibit N-M2-VECC-42.1, Attachment 1.

227. Concentric also compared the deemed equity ratios for Ontario's electric and gas utilities to the actual and authorized equity ratio for the operating companies in the Canadian and U.S. proxy groups. The results of that analysis are summarized in Figure 36 below from Concentric's report. This analysis demonstrates that the current deemed equity ratios in Ontario are well below both the actual and authorized equity ratios for the operating utility companies in the U.S. Electric and U.S. Gas proxy groups. This is not consistent with the Fair Return Standard.[162]

Figure 36: Actual and Deemed Equity Ratios for Proxy Groups

Proxy Group	Actual Equity Ratio	Deemed/Authorized Equity Ratio
U.S. Electric	52.30%	52.12%
U.S. Gas	53.85%	54.55%
Canadian	52.70% (US subs) 43.40% (Canadian subs)	51.69% (US subs) 40.30% (Canadian subs)

228. In light of these findings, Concentric recommends that the OEB's approach to setting the deemed capital structure should consider each utility company within the context of similarly- situated companies, for example, the proxy group companies, rather than being limited to requiring a demonstration of changes in business risk over time. Under the existing, latter approach, the OEB does not avail itself of all the necessary evidence to assess how the deemed capital structure for Ontario's regulated utilities compares to how other utility companies with comparable risk are capitalized, which is necessary to meet the Fair Return Standard.[163]

D. Concentrics Recommended Deemed Equity Ratio

229. The Fair Return Standard requires the OEB to set a return that (1) is sufficient for the utilities to maintain their financial integrity, (2) allows the utilities to attract equity and debt capital on reasonable terms, and (3) enables the utilities to compete for capital by

[162] Concentric Report at p. 135.
[163] Concentric Report at p. 136.

offering a comparable return as investments of similar risk. Ontario equity thicknesses do not currently meet the standard.[164]

230. Historically, the Board's risk ranking of Ontario utilities places Enbridge Gas at the low end of the risk spectrum and OPG at the high end, with electricity distributors and transmitters in the middle. Based on industry-segment-specific risks, and particularly the acute risks to the natural gas distribution segment caused by the Energy Transition, Concentric finds natural gas distribution to be riskier than electric distribution operations. In addition, Concentric views single-asset transmission utilities as bearing distinct risks related to a lack of diversification of revenues, which can contribute to their risk profile. Concentric further finds that OPG, as the only regulated pure-play generation company in North America, with significant planned investments in nuclear projects and significant exposure to volumetric revenue risk, has a distinct risk profile that sets OPG apart from other Ontario utilities.

231. Independent of the risk ranking, however, Concentric expresses that Ontario deemed equity thicknesses, by being lower across the board than their U.S. peers, do not meet the Fair Return Standard.

232. Concentric found that that Ontario's regulated distribution and transmission utilities generally have comparable business risk to the companies in the North American Electric and Gas comparator groups. Concentric also concludes that Ontario's utilities have similar financial risk to other electric and gas utilities in Canada and substantially greater financial risk than their U.S. peers due to the relatively low deemed equity ratios of 38 percent for Enbridge Gas, 40 percent for electric distribution and electric transmission, and 45 percent for OPG.[165]

233. Given the unique characteristics of OPG, and the fact that its regulated operations consist entirely of generating assets, it is not possible to find proxy

[164] Concentric Report at p. 136.
[165] Concentric Report at p. 136.

companies that are perfectly comparable from a risk perspective. OPG's business risk, however, is higher than the proxy groups presented herein.

234. Given its findings, Concentric recommends the following with regard to equity thickness:

(a) the OEB set a minimum deemed equity ratio for Ontario utilities of 45 percent. That equity ratio would reflect progress towards parity for equity thickness among North American peers and allow Ontario's utilities to compete for both debt and equity capital on a more favorable basis. Increasing the equity ratios for electric distributors and transmitters and Enbridge Gas would also reflect those industry segments' increased levels of risk.

(b) increasing OPG's equity ratio in order to meet the Fair Return Standard, with a specific determination to be made by the OEB as part of OPG's next payment amounts proceeding taking into account the company's higher business risk relative to the proxy group.

235. In this proceeding, Concentric is not recommending individual utility changes to equity thickness, but rather a minimum equity thickness for all utilities. As Concentric discusses, there are factors that differentiate the risk levels among multiple segments of the industry, including OPG, single-asset transmitters, and Enbridge Gas. As such, in addition to our recommendation of a minimum 45 percent equity ratio, Concentric also recommends that each utility be authorized at its discretion to retain its current equity ratio and have the ability to propose differences from the "generic" equity thickness in its rates application.[166]

236. LEI recommends maintaining the OEB's current approach to determining the cost of capital, including the deemed capital structure, as, in LEI's view, it sufficiently considers investors' perspectives, i.e., the allowed cost is commensurate with the perceived risks associated with the sector, and meets the Fair Return Standard. With

[166] Concentric Report at p. 137.

that said, it is noteworthy that LEI's report is silent in terms of any justifications or evidentiary support for the continuation of the difference in the deemed equity ratio approved for Enbridge Gas and that approved for electric distributors. Accordingly, there no longer appears to be a compelling reason for the continuation of this treatment particularly given the fact that the deemed equity ratio of comparable U.S. Gas utilities is on average more than 2 points higher than those of U.S. Electric utilities.

237. Dr. Cleary recommends decreasing Hydro One's equity ratio to 36 percent and reducing Enbridge Gas's equity ratio to 36 percent (despite the OEB's recent rejection of Dr. Cleary's recommendation in the Enbridge Gas Rebasing Application and the OEB's determination that Enbridge Gas's equity ratio should be increased). Dr. Cleary bases his recommendation on Hydro One's credit ratings, cost of debt, and its historical earned returns. Dr. Cleary's analysis, however, is backward looking and ignores direct evidence from the investment community. For instance, in a July 2024 Credit Opinion update, Moody's notes "[Hydro One's] relatively weak financial metrics are primarily the result of its low authorized equity layer in the capital structure (currently 40%) that is established by the OEB."[167] Dr. Cleary's capital structure proposals should be rejected.

238. LEI proposes that applicants should be required to include forward cash flow modeling and scenario analysis showing impact on credit metrics to support a request for a change in equity ratio.[168] LEI's recommendation for utilities to include forward cash flow modeling and scenario analysis showing the impact on credit metrics to support significant changes in business and/or financial risks creates a methodology that is too rigid and limiting for supporting changes that may need custom approaches in the future, and also raises confidentiality concerns. Reliance solely on cash flow and its impact on credit metrics fails to incorporate the complexity and manner of risks considered by equity investors, especially in an evolving risk environment. It also does not consider the utility's competitiveness for capital relative to its peers.

[167] Exhibit N-M2-2-OEB Staff-3.
[168] LEI Report at p. 17.

239. In Concentric's view, resetting the appropriate cost of capital and deemed equity thickness based on the methodologies described herein (i.e., DCF, CAPM, and Risk Premium models), along with consideration of financial, regulatory, and policy risks and an analysis of peer company equity ratios would ensure that the Fair Return Standard is met. The Fair Return Standard requires consideration of both changes in the utility's risk profile over time, as well as how the utility's business risk and deemed capital structure compares to the proxy group companies. Furthermore, commensurate returns and equity thickness set for the duration of the rate term, and reviewed every five years by the OEB, support relative regulatory predictability and the utility's financial stability.[169]

Issue #13 Should the OEB take a different approach for setting the capital structure for electricity transmitters depending on whether they are a single versus multiple asset transmitter?

240. The risk analysis provided in the prior sections is based on corporate entities holding multiple assets. In this proceeding, Concentric is not providing specific recommendations regarding differences in equity ratios for each utility, but rather is focused on a "generic" equity thickness that can then be modified in individual utility rates applications, as is currently permitted in Chapter 2.9 of the Filing Requirements For Electricity Transmission Applications.

241. In such a rates application, Concentric expects that factors related to diversification of operations would be considered, among others. For example, Concentric notes that single-asset companies do not have the same benefits of ongoing cash flows from other operations and the associated diversification of revenues, which can contribute to their risk profile.

242. Concentric recommends that the Board adopt a minimum equity ratio of 45% for all electric transmitters and has not made specific recommendations at this time regarding any risk premium that may be warranted for single-asset transmitters. Such a

[169] Concentric Report at p. 137.

differential could be proposed and supported in the context of utility-specific rates applications.[170]

243. LEI recommends maintaining the OEB's current approach to determining the cost of capital for all electric transmitters.

244. LEI's view does not consider the unique risks of transmission development, and the extent to which they are proportionately greater for a single-asset developer lacking the diversity of revenues and cash flows of a diversified transmission (or T&D) owner in Ontario. Reliance on one customer, the IESO, if anything increases risk, as IESO's rules are subject to operational and government policy changes not found in a broader customer mix. A foundational business management principle is the avoidance of a high customer concentration, let alone a single counterparty. As LEI recognizes "Transmitters (big and small) cannot diversify customer risk or economic risk." The fact that transmitters may be part of larger entities does not reduce the risk of the single asset investment in Ontario if that entity is established on a stand-alone basis for purposes of raising capital. This is not a size issue; it is a matter of diversifiable business risk, which a single asset transmitter does not possess.

Mechanics of Implementation (Issues 14-19)

Issue #14 What on-going monitoring indicators to test the reasonableness of the results generated by its cost of capital methodology should the OEB consider, including the monitoring of market conditions?

245. The OEA adopts the recommendation of Concentric. All formulaic approaches run the risk of deviation from a fair return. Fluctuations in financial markets are inevitable, and relationships between bond and utility equity securities cannot be fully anticipated by historical relationships, leading formulaic automatic adjustment mechanism results to deviate from required equity returns. Consequently, periodic rate hearings remain the only reliable method for determination of utility ROEs that remain consistent with the Fair Return Standard. Understanding this limitation, Concentric recommends the Board take several steps to limit the potential impacts of deviations

[170] Concentric Report at p. 140.

between the formula ROE, deemed capital structures and a fair return. Given that short- and long-term debt rates are linked to market based data, those rates should be self-regulating. ROE and capital structure should therefore be the primary focus.[171]

246. Concentric recommends the OEB track and compare the following key utility and broader macroeconomic parameters:

(a) Authorized ROEs and equity ratios in other Canadian jurisdictions (individually) and the U.S. by industry segment (electric, gas);

(b) 10 and 30-year Treasury Bond Yields (Canada and the U.S.);

(c) A- and BBB-Rated Utility Bond Yields (Canada and the U.S.); and

(d) Betas for the North American Proxy Group as defined in Section V of the Concentric Report.

247. Concentric recommends that this comparison be done on an annual basis.

248. LEI recommends that the OEB maintain its existing approach by continuing to monitor the cost of capital parameters and test their reasonableness on a quarterly basis through reports prepared for internal review purposes only.

249. While the OEA does not object to a quarterly review, it is of the view that annual updates are sufficient. Additionally, there is no basis for the review and reports to be prepared on an internal basis only. Sharing of such information increases transparency and would allow stakeholders the opportunity to monitor the results of the OEB's cost of capital determinations on the same basis as Staff. Nexus agrees with Concentric and the OEA that reports prepared by the Board, whether quarterly or yearly should be published for all interested parties to review.[172]

[171] Concentric Report at p. 142.
[172] Nexus Report at p. 85.

250. Dr. Cleary recommends that the OEB's current practice of quarterly reports should be retained. He makes no comment on whether the reports should be issued for internal purposes only.[173]

Issue #15 How should the OEB regularly confirm that the FRS continues to be met and that rate-regulated entities are financially viable and have the opportunity to earn a fair, but not excessive, return?

251. The three prongs of the question are addressed below.

E. How to confirm the FRS continues to be met

252. Concentric's ROE and capital structure recommendations outlined in Sections VI and VII are based on a full evaluation of capital market information necessary to meet the standards of the FRS. These recommendations should be adopted so that the base ROE and deemed capital structures meet the FRS at the outset. Thereafter, Concentric's monitoring recommendations outlined in response to Issue #14 should be sufficient to detect any material deviations from the FRS over the period between full reviews (e.g., every 5 years).[174]

F. How to confirm that rate-regulated entities are financially viable?

253. Financial viability is a lower threshold than meeting the FRS and might be interpreted as the ability to raise debt sufficient to fund ongoing operations and meet debt obligations, at least in the near term. Credit rating agencies focus on these issues and underlying financial metrics, so in addition to the monitoring outlined in Issue #14, Concentric recommends monitoring credit ratings from each agency covering Ontario's rate-regulated utilities.[175]

G. How to confirm that rate-regulated entities have the opportunity to earn fair, but not excessive return?

254. There are two dimensions to this issue. First, the fair return begins with setting the authorized ROE and deemed equity ratios established under the FRS, as

[173] Cleary Report at p. 52.
[174] Concentric Report at p. 143.
[175] Concentric Report at p. 143.

recommended by Concentric in previous sections. Second, the opportunity to earn that return is based on a combination of efficiency of management, fluctuations in customer demand and macroeconomic or operational events beyond the utility's control, and the regulatory framework. Excessive (or insufficient) returns can be prevented through a combination of earnings sharing mechanisms and/or offramps tied to the allowed ROE. The OEB's existing policy for electric distributors, in Concentric's view, is reasonable, where "Each rate-setting method will include a trigger mechanism with an annual ROE dead band of ±300 basis points. When a distributor performs outside of this earnings dead band, a regulatory review may be initiated."[176]

255. Concentric recommends a continuation of this 300 bps trigger mechanism policy for all rate-regulate entities with consideration given to a specific utility's rate framework and earnings sharing mechanisms for determining whether a regulatory review may be initiated.

256. LEI and Dr. Cleary recommend requiring utilities to file specific details regarding equity and debt issuances during each year. Concentric disagrees with this recommendation as it would be both administratively burdensome, and beyond typical reporting requirements. LEI has not identified a tangible benefit of this proposed reporting requirement that would be worth the additional administrative burden and cost.

257. Nexus suggests that the OEB complete a benchmarking exercise of Ontario's utilities to its peer jurisdictions to confirm the FRS is met.[177] While the OEA believes Concentric's recommendations are sufficient, it does not oppose a further benchmarking exercise.

Issue #16 What should be the timing of the OEB's annual cost of capital parameters updates, including the timing, as required, of the underlying calculations?

[176] Concentric Report at p. 144; Renewed Regulatory Framework for Electricity, Report of the Ontario Energy Board, October 18, 2012, p. 11.
[177] Nexus Report at p. 86.

258. Concentric and LEI agree that the OEB should continue to update its cost of capital parameters in October, using data as of September 30th, except where forecasts are utilized. Concentric generally recommends trailing 90-day averages where historical data are utilized to avoid inherent volatility in single month's data.[178]

259. Dr. Cleary agrees with existing approach but recommends using October data rather than September data to update the ROE formula where this approach would not cause undue disruptions to its existing processes and procedures.[179] This approach would simply delay the implementation of any changes by a month.

260. Nexus has not opined on this issue.

Issue #17 What should be the defined interval (for example, every three to five years) to review the cost of capital policy (including, but not limited to, a review of the ROE formula and the capital structure)? Should the OEB adopt trigger mechanism(s) for a review and if so, what would be the mechanisms?

261. As previously noted, all formulaic approaches run the risk of deviation from a fair return. Fluctuations in financial markets are inevitable, and relationships between bond and utility equity securities cannot be fully anticipated by historical relationships, leading formulaic results to deviate from required equity returns. Consequently, periodic rate hearings remain the only reliable method for determination of utility ROEs. Understanding this limitation and adopting the monitoring steps recommended in response to Issues #14 and #15, Concentric recommends periodic cost of capital reviews with refreshed market data on ROE and capital structure every five years.[180]

262. Taken together, these steps provide a reasonable balance between the regulatory efficiency of a formulaic based approach and the requirements of meeting the Fair Return Standard. An additional safeguard would be to adopt the FERC approach, allowing the Board or an intervenor to challenge the reasonableness of the allowed

[178] Concentric Report at p. 146-147.
[179] Cleary Report at p. 54.
[180] Concentric Report at p. 147.

return (including both the ROE and capital structure), or for a company to request a change in its authorized return, based on updated market evidence.[181]

263. Concentric and LEI are in agreement on this issue while Nexus recommends a cost of capital proceeding every three years.[182]

264. Dr. Cleary recommends reviews every three years, but never more than five years. However, Dr. Cleary also recommends that if the Canadian A-rated utility yield spreads exceed 2%, the Board should undertake an immediate and thorough assessment of existing capital market conditions, which could lead to a full regulatory review, depending on the results of the review. [183] Such an approach seems to be unnecessary if the Board commits to full cost of capital and capital structure reviews every five years. In doing so, changes in the capital market conditions will be adequately captured on a recurring and timely basis.

Issue #18 How should any changes in the cost of capital parameters and/or capital structure of a utility be implemented (e.g., on a one-time basis upon rebasing or gradually over a rate term)?

265. Changes in the cost of capital parameters (ROE, long-term debt and short-term debt rates) should take effect for all utilities in the rate year following the OEB's decision in this proceeding (subject to any settlement agreements and each utility submitting a compliance filing demonstrating how the change would be implemented within the context of its specific IR plan), and in subsequent periods where the parameters are updated. This is especially important given the passage of time since the Board's last full review in 2009. In Concentric's view, it is not necessary to wait for rebasing, and any delays in implementation would not serve the public interest or meet the Fair Return Standard if the Board determines that updated parameters are justified.[184]

266. Depending on the magnitude of change in the deemed capital structure, the Board may want to consider changes in capital structure implemented over a period of

[181] Concentric Report at p. 147.
[182] Nexus Report at p. 87.
[183] Cleary Report at pp. 55-56.
[184] Concentric Report at p. 148.

up to three years. This incremental approach would serve two purposes: 1) to allow the utility treasury functions to manage the transition (e.g., retiring debt and investing new equity as appropriate), and 2) to mitigate the effects of any rate impacts. Unlike ROE and debt rates, changes in the capital structure will require time to implement.[185]

267. LEI recommends, and Dr. Cleary agrees, that the OEB should implement changes in the cost of capital parameters and capital structure upon rebasing.[186] The OEA, and Concentric, disagree with this recommendation. Ontario utilities operate under rate programs with durations extending up to 5 years or longer. By waiting until a utilities next rebasing, utilities would be forced to continue with an ROE that does not meet the FRS for that period of time. There is no reasonable interpretation of the FRS that would allow such a time lapse in the meeting of its requirements. Any change to the ROE should be implemented as soon as reasonably possible, which Concentric opines is the start of the next rate year for each utility.[187]

268. Nexus does not opine on this issue.

Issue #19 Should changes in the cost of capital parameters and/or capital structure arising out of this proceeding (if any) be implemented for utilities that are in the middle of an approved rate term, and if so, how?

269. Yes, as indicated in response to Issue #18, Concentric believes it would be appropriate for changes in the cost of capital parameters and/or capital structure arising from this proceeding to be implemented in the next rate year, including for utilities in an approved rate term, subject to any settlement agreements and each utility submitting a compliance filing demonstrating how the change will be implemented within the context of its specific IR plan (e.g. Custom IR or I-X plan). All other elements and incentives of existing rate plans would remain in effect.[188]

270. LEI recommends, and Dr. Cleary agrees, that changes in the cost of capital and capital structure be implemented upon rebasing unless a two-factor test is met: (i) the

[185] Concentric Report at p. 148.
[186] LEI Report at p. 160.
[187] Concentric Report at pp. 148-149.
[188] Concentric Report at p. 149.

utility should have more than 60% of its rate term remaining, and (ii) deviations in the cost of capital parameters should be material (100 bps or more).[189]

271. There is no basis for only implementing changes to the cost of capital or capital structure only when these thresholds are met. The FRS is a legal requirement that must be met. If it is determined that the current cost of capital parameters or capital structure does not meet the FRS, then it should be corrected straight away, and there is no need for a triggering mechanism. In fact, waiting for a triggering mechanism of the type LEI proposes would mean some utilities would be meeting the FRS while others are not.

272. Nexus does not opine on this issue.

Prescribed Interest Rates (Issues 20-21)

Issue #20 Should the prescribed interest rates applicable to DVAs and the construction work in progress (CWIP) account for electricity transmitters, electricity distributors, natural gas utilities, and OPG continue to be calculated using the current approach?

Issue #21 If no to Issue #20, how should the prescribed interest rates applicable to DVAs and the CWIP account be calculated?

273. The OEB currently applies a formulaic approach to setting prescribed interest rates for DVAs and CWIP, although DVAs have a different interest rate than CWIP. For DVAs, the OEB applies the 3-month bankers' acceptance rate plus a fixed spread of 25 basis points. For CWIP, the OEB applies the FTSE Canada (formerly DEX) Mid Term Bond Index All Corporate yield.

274. Concentric recommends the application of the weighted average cost of capital (the "**WACC**"), to both DVAs and CWIP because this approach is most consistent with regulatory and corporate finance principles.[190]

[189] LEI Report at p. 163.
[190] Concentric Report at p. 151.

A. Prescribed Interest Rates for DVAs

275. DVAs and other regulatory deferrals are common tools that allow a smoothing out of the rate impacts of extraordinary or unanticipated expenditures. The appropriate carrying cost on DVAs should reflect the cost of capital associated with the delay in recovery and follow the Fair Return Standard. Regulators typically apply long-standing regulatory and corporate finance principles in determining the carrying cost. Those principles support the conclusion that the WACC appropriately reflects the appropriate remuneration for regulated utilities that must finance investments and operations.[191]

276. Utilities must fund day-to-day operations, and they also invest in a mix of long-term assets (such as property, plant, and equipment) and short-term assets (such as net working capital). From a corporate finance perspective, financing sources are commonly matched in duration to the service lives of the underlying assets, so that repayment obligations are matched to the income produced by the assets. In practice, however, it is not feasible to trace one source of financing (e.g. long-term or short-term debt) to individual assets. Rather, the utility's overall capital structure (comprised of various financing sources and durations) supports its overall asset base (comprised of assets of various lives).[192]

277. In addition, while utilities may use short-term debt to finance immediate needs such as capital expenditures or working capital needs, they will also refinance those borrowings with long-term financing as practical and as market circumstances afford.[193]

278. The principle of a fair return applies to DVAs because utilities have committed capital to fund their deferred costs, which could include operations and maintenance expenses, and that commitment of capital warrants the opportunity to earn a reasonable return. For utilities to have the opportunity to earn a reasonable return, they must have the opportunity to recover the WACC. Just as each utility's assets are comprised of a mix of shorter- and longer-term assets, so too do its financing resources reflect a mix of

[191] Concentric Report at pp. 151-152.
[192] Concentric Report at p. 152.
[193] Concentric Report at p. 152.

shorter- and longer-term sources. To draw a line that traces one source of financing to one asset for purposes of establishing the return on DVAs would be inconsistent with the application of a WACC return to each utility's overall rate base. For instance, if we assume that one source of financing, such as a specific issuance of debt, is used to fund one element of a company's operations, then, in order for the company to maintain its capital structure, we must assume that a separate element of the company's operations is funded by a different source or issuance. Such an approach is not practicable or, in many cases, even feasible.[194] In addition, the assumption that all construction is funded with debt without offsetting adjustments elsewhere to the capital structure (such as increasing the deemed equity ratio used to calculate the return on rate base) would leave the utility undercapitalized.

279. Concentric recognizes that the timeframe over which a regulatory asset is accumulated and recovered is a historical consideration by the Board in assigning an appropriate carrying cost. At the same time, as described above, it is not practicable to trace one source of financing (e.g., long-term or short-term debt) to individual assets. In addition, disregarding the WACC for certain financings but applying it for others would double-count certain debt issuances in the cost of capital and undermine the overall regulatory financing assumptions upon which rates are determined and investors are compensated.[195]

280. DVAs can involve the deferral of operations and maintenance expenses. Allowance of a WACC return on such DVAs is appropriate because the return on DVAs is measuring the timing over which utilities must commit capital before recovering such costs from customers.[196]

281. Concentric recommends, for the reasons discussed above, that the Board apply the WACC to DVA balances that are to remain on utilities' balance sheets for more than one year and retain a short term rate for DVAs that are cleared within one year. As symmetry is an important consideration, Concentric recommends the short-term rate or

[194] Concentric Report at pp. 152-153.
[195] Concentric Report at p. 153.
[196] Presentation Day Transcript, at pp. 52-52.

WACC (depending on the timeframe of the DVA's disposition) be applied to both positive and negative DVAs. Application of the WACC to long-term DVAs would be consistent with the BCUC's approach, as discussed by LEI.[197]

B. Prescribed Interest Rates for CWIP

282. Concentric finds that the current approach that applies the long-term cost of debt to CWIP balances has the potential to significantly understate the cost of capital for utilities during the construction phase of projects. While certain smaller and more routine construction projects can be completed within a year, many are larger, long-term projects, and the period between when construction costs are first incurred and when those assets go into service can span multiple years. Over those periods, the utilities are financing construction on their balance sheets at the WACC, which includes an equity component. The OEB's current approach to carrying charges on CWIP recognizes the long-term nature of construction projects by applying a long-term cost of debt but ignores that utilities also employ retained earnings and equity issuances to fund construction. Excluding the cost of equity borne by utilities during construction deprives the utilities of the opportunity to recover their full costs of financing, including the cost of equity over the life of the investment.[198]

283. Furthermore, a long-term debt-only approach also places the Ontario utilities out of step with their U.S. and Canadian peers, placing them at a relative disadvantage in the ability to attract equity capital, which can be of particular concern during the Energy Transition. For example, the FERC formula for accruals of carrying charges on CWIP includes an equity component.[199]

284. Many Canadian regulators also allow the accrual CWIP at the WACC. For example, British Columbia, Newfoundland and Labrador, Canada Energy Regulator, the AUC and Nova Scotia allow utilities to accrue carrying charges on CWIP at the WACC. In fact, use of a debt-return only makes Ontario an outlier among North American

[197] Concentric Report at p. 153.
[198] Concentric Report at pp. 153-154.
[199] Concentric Report at p. 154.

regulatory jurisdictions. Concentric believes the approach of applying a WACC return on CWIP would not be overly burdensome as each utility would be responsible for performing the calculation based on readily available accounting data, and based further on the fact that it is so widely applied (and, generally, with little controversy), in the U.S. and other jurisdictions.[200]

285. For the reasons outlined above, Concentric recommends that the OEB apply the WACC to CWIP for purposes of accruing carrying costs on construction balances. Since the OEB already considers short term debt within the capital structure for many of the utility participants, the FERC specification of the AFUDC rate does not need to be specifically applied. Rather, the application of the WACC for Ontario utilities appropriately reflects the regulated capital structure, including short-term debt.[201]

C. The Other Experts

286. LEI and Dr. Cleary recommend that, for DVAs, the OEB align the prescribed interest rates with LEI's proposal for the DSDTR, which is the average of 3-month CORRA futures rates for the next 12-month period plus the spread for a R1-low rated utility over CORRA, based on a confidential survey of 6-10 banks. For CWIP, LEI recommends continuing the current approach. In making these recommendations, LEI states that it is seeking to achieve the objectives of: (1) an internally consistent cost of capital policy framework to align calculation methodologies where possible; and (2) consideration of previous OEB decisions.[202]

287. Concentric agrees with LEI's recommendation for short-term DVAs (i.e., accounts that will clear within one year), but, as discussed above, recommends the Board apply each utility's WACC to long-term DVAs, consistent with corporate finance principles.[203]

---

[200] Concentric Report at p. 155.
[201] Concentric Report at p. 155.
[202] LEI Report at p. 168.
[203] Concentric Report at p. 155.

288. LEI appears to have modified its recommendation at the oral hearing in the proceeding to endorse the application of WACC on projects with a duration of more than one year:

> Mr. GOULDING: So, first, with regards to CWIP, which was discussed this morning, our report did include consideration of applying the WACC during the construction period. And, while consistent with our approach throughout the report, we relied on precedence and administrative simplicity.
>
> We note that if you were to weigh other factors, we do believe that the application of the WACC, particularly for projects with a duration of more than one year, would be consistent with FRS.[204]

289. Concentric recommends that the WACC be applied to provide for recovery of the utility's full financing cost, particularly given the need to attract significant capital in support of the Energy Transition. As such, Concentric agrees with the LEI position on this issue as modified at hearings but disagrees with LEI's recommendation of maintaining the status quo as expressed in LEI's written report. From an implementation perspective, this approach is not burdensome because the WACC for each utility is readily available.[205]

Cloud Computing Deferral Account (Issue 22)

Issue #22 Should carrying charges and/or another type of rate apply to the Cloud Computing deferral account? If so, what rate should be applied?

290. The OEB established a deferral account for incremental costs of cloud solution implementation that was effective December 1st, 2023, the disposition of which would be determined in utilities' next rates application proceeding.

291. The adoption of information technology ("IT") cloud services and associated ratemaking and regulatory issues have risen in prominence in recent years in the regulated utility sector. Numerous industry organizations have highlighted the benefits of cloud computing and recognized current barriers to utility adoption of cloud services

[204] Transcript Oral Hearing Volume 1 at p. 48.
[205] Concentric Report at pp. 155-156.

given traditional utility ratemaking approaches. Cloud computing can provide many important and meaningful benefits for utilities and their customers. There is also an overall technology industry trend that on-premise versions of major platforms are being phased out. As such, Concentric believes it is important from a regulatory policy perspective that utilities are not disincentivized to pursue cloud computing solutions, and further that utilities are incentivized to consider the best operational outcomes (and therefore lowest long-term customer cost). Concentric finds that cloud solutions should be treated on par with in-house capitalized IT systems, appropriately removing the aforementioned disincentive. This is further warranted by the fact that DVAs more typically account for pass-through items or items that are beyond the control of the utility, while the Cloud Computing Deferral Account is differentiated because it involves utility choices, and thus the incentives behind those choices should be considered in setting the carrying cost rate.[206]

292. LEI believes a deemed WACC is necessary as a means of aligning incentives for utilities to transition to cloud computing solutions and recommends that the OEB employ a deemed capital additions approach, which allows deemed WACC on unamortized portions of the cloud computing contracts.[207] Concentric agrees with this recommendation.[208]

ALL OF WHICH IS RESPECTFULLY SUBMITTED this 7th day of November, 2024.

Crawford Smith

[206] Concentric Report at pp. 156-157.
[207] LEI Report at p. 175.
[208] Concentric Report at p. 157.

LAX O'SULLIVAN LISUS GOTTLIEB LLP
Counsel
Suite 2750, 145 King Street West
Toronto ON M5H 1J8

Crawford G. Smith LSO#: 42131S
csmith@lolg.ca
Tel: 416 598 8648

Tyler Morrison LSO#: 80119E
tmorrison@lolg.ca
Tel: 416 956 5100

Fax: 416 598 3730

Lawyers for the Ontario Energy Association