London Economics International LLC

Support in the generic proceeding on cost of capital and other matters (EB-2024-0063)

Presentation Day

AJ Goulding
Amit Pinjani
Shashwat Nayak
September 5, 2024

Agenda

1	**Key messages**
2	Key areas of difference of opinion
3	Appendix - Summary of LEI recommendations

LEI recommendations are based on 5 key principles with the objective of making changes only where necessary

- **LEI proposes evolutionary rather than revolutionary changes in response to the issues identified in the Generic Proceeding**
- **LEI has recommended that several aspects of the status quo be retained. For example:**
  - Adjusting the deemed capital structure only when there is a significant change in the risk profile
  - Ownership structure not relevant in determination of the cost of capital parameters
  - Annual updates of key cost of capital parameters
- **However, LEI's findings suggest that Ontario utilities and consumers may benefit from evolving certain other aspects. For example:**
  - Proactive impact assessments before material regulatory changes
  - Mandating forward cash flow modeling and credit metrics' impact analysis when proposing a change in authorized capital structure
  - Replacing the 50 bp adder for transaction costs associated with equity issuances with cost-based treatment

Key principles

- Meeting the Fair Return Standard ("FRS")
- Simple to administer relative to the status quo
- Transition from status quo only if the benefits of transition are material
- Fairness in approach to consumers and utilities
- Predictability and transparency

A few overarching messages are important to convey

- √ **Risk is a function of timing and likelihood of recovery**. There is no evidence that 'energy transition' impacts either timing or recovery for regulated utilities, particularly in the forthcoming regulatory period (2025-2029)
- √ There is **no evidence of inability to raise sufficient amounts of capital** on reasonable terms
- √ **Risk is based on the activity** and not the nature of the investor, meaning size, type of organization, or community status are less relevant if within the control of the investor
- √ **Change in compliance burden** (associated with forward cash flow modeling and reporting of new debt/equity issuances) **is minimal** given that information requested already exists and processing time is negligible
- √ **Matters associated with First Nations** are critical, however are **best addressed in separate proceeding**
- √ It may well be **not that Ontario ROE is low**, **but** that **some US regulators are more generous** than they need to be
- √ For ROE determination, while there is **no academic justification to average multiple methodologies**, LEI recognizes **there may be pragmatic reasons** to do so

LEI's recommendation for cash flow modeling is consistent with LEI's views against over-reliance on analysts' earnings

1. **Companies themselves have better information than analysts**
2. **Forward CF modeling is consistent with analysis that banks/lenders would conduct**
3. **Forward CF modeling does not rely on whether analysts cover the company regularly or not**
4. **The objectives are different**

LEI has reviewed other regulators' approaches towards First Nations reconciliation / participation in a separate April 2023 report: 'Jurisdictional review of new roles and activities of regulators in response to the energy transition'

Agenda

1	Key messages
2	**Key areas of difference of opinion**
3	Appendix - Summary of LEI recommendations

LEI has expanded upon seven key areas of difference of opinion between LEI and one or more experts

#	Select areas of difference of opinion
1	Why is cash flow modeling and impact analysis for key credit metrics important to assess for capital structure changes?
2	Why allowing 50bp in ROE for transaction costs associated with equity issuances does not make sense?
3	Why the use of Canadian Rf is consistent with the methodology to estimate Market Risk Premium (MRP) based on US data?
4	Why LEI's MRP estimate is reasonable?
5	Beta estimation - why un-lever and re-lever (instead of utilizing Blume Adjustment)?
6	Why utilize CAPM only (instead of averaging multiple methodologies)?
7	ON electricity distributors on average did not attain deemed ROE. This does not imply increased regulatory risk

While there are some additional areas of differences, LEI has focused on the most relevant

Forward-looking cash-flow modeling allows to assess impacts of changes to equity thickness relevant to investors / rating agencies

- **Forward cash flow modeling and scenario analysis is essential to provide a grounded picture of the impacts of existing/proposed equity thickness, which would be considered by both:**
  - ***Credit rating agencies*** (in upgrading/downgrading the rating for a given utility); and
  - ***Investors*** considering making loans to the company
- **While other expert(s) have recognized that this is one of the perspectives in analyzing business and financial risk, LEI believes this is one of the most important elements. Utilities likely already have forward-looking models, with analysis that they would need to perform for banks/lenders**
- **In previous proceedings, LEI has performed similar quantitative analysis showing impact of change in capital structure on key credit metrics**

Snapshot from LEI analysis conducted in the Enbridge Gas proceeding (EB-2022-0200)

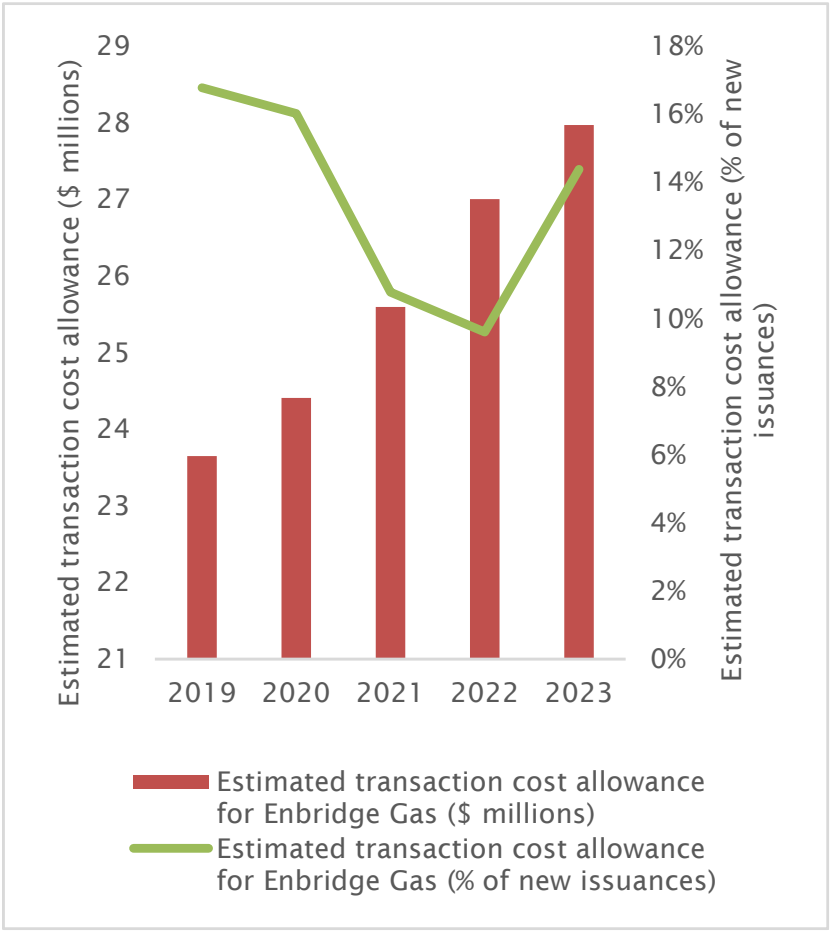
Credit metric	Description
Debt/EBITDA	▪ Evaluates a company's ability to pay its debts ▪ A higher value suggests a longer time may be needed to pay debt, and thus is correlated with lower credit rating
FFO/Debt	▪ Assesses extent to which company is leveraged ▪ A lower value suggests higher leverage levels, and is correlated with lower credit rating
FFO/Interest	▪ Assesses the ability of a company to service its interest expenses ▪ A higher value suggests sufficient cashflows to service interest payments, and may support higher credit rating
CFO/Debt	▪ Assesses the leverage but evaluates the extent to which the company's operating cashflows can repay its debt obligations ▪ Like FFO/Debt, a lower value is correlated with a lower credit rating
EBIT/Interest	▪ Measures a company's earnings over its interest payments. ▪ A higher value suggests better financial health of the firm, and correlates to a higher credit rating

Credit Metric	2019-2023 average	2023	2024	2025	2026	2027	2028
ROE of 8.36% for 2024-2028 (38% common equity ratio)							
Debt/ EBITDA (x)	5.47x	5.75x	5.25x	5.20x	5.16x	5.13x	5.10x
FFO/ Debt (%)	13.43%	12.75%	14.30%	14.46%	14.63%	14.75%	14.86%
FFO/ Interest (x)	3.19x	3.08x	3.43x	3.47x	3.51x	3.54x	3.57x
EBIT/Interest (x)	2.58x	2.44x	2.37x	2.37x	2.37x	2.37x	2.37x
CFO/Debt (%)	14.08%	13.24%	14.89%	15.05%	15.22%	15.34%	15.45%
ROE of 7.36% for 2024-2028 (38% common equity ratio)							
Debt/ EBITDA (x)	5.47x	5.75x	5.44x	5.40x	5.35x	5.31x	5.28x
FFO/ Debt (%)	13.43%	12.75%	13.69%	13.84%	14.02%	14.14%	14.25%
FFO/ Interest (x)	3.19x	3.08x	3.28x	3.32x	3.36x	3.39x	3.42x
EBIT/Interest (x)	2.58x	2.44x	2.21x	2.21x	2.21x	2.21x	2.21x
CFO/Debt (%)	14.08%	13.24%	14.21%	14.36%	14.54%	14.66%	14.77%
ROE of 6.36% for 2024-2028 (38% common equity ratio)							
Debt/ EBITDA (x)	5.47x	5.75x	5.65x	5.60x	5.55x	5.51x	5.48x
FFO/ Debt (%)	13.43%	12.75%	13.08%	13.23%	13.41%	13.52%	13.64%
FFO/ Interest (x)	3.19x	3.08x	3.14x	3.17x	3.22x	3.24x	3.27x
EBIT/Interest (x)	2.58x	2.44x	2.04x	2.04x	2.04x	2.04x	2.04x
CFO/Debt (%)	14.08%	13.24%	13.53%	13.68%	13.85%	13.97%	14.09%

Embedding 50 bp within the ROE for transaction costs associated with equity issuances has no empirical basis

- **Equity is not issued with predictable regularity, which makes such transaction costs appropriate to be recovered as and when the utility incurs such expenses**
- **Although some jurisdictions allow 50 bp adder (via circularly referencing to other regulatory decisions), BCUC rejected the adder in its 2023 Generic Cost of Capital proceeding, noting:**
  - ***The Panel finds that the proposed flotation cost adder is too vague to be a just and reasonable expense recoverable from ratepayers***
  - ***Those expenditures, if and as incurred, can be recovered from the ratepayers… following review and approval as part of each utility's Revenue Requirement process in the normal course***
- **The 50 bp adder, in LEI's view, is likely to lead to overcompensation, given its application on all deemed equity and not just new issuances**
  - LEI has illustrated this via an example (see graphic)
  - There is ***no evidence to suggest that Enbridge Gas has actually incurred ~10%-17% in transaction costs*** associated with new equity issuances
  - In fact, OEA's IR response (N-M2-10-OEB Staff-16) states: ***recent research by the Enbridge Treasury team***, which ***found that the average flotation costs*** for a sample of Canadian and U.S. utilities were also ***equal to slightly more than 5%*** of the gross proceeds

Estimated transaction cost allowance for Enbridge Gas (2019-2023)

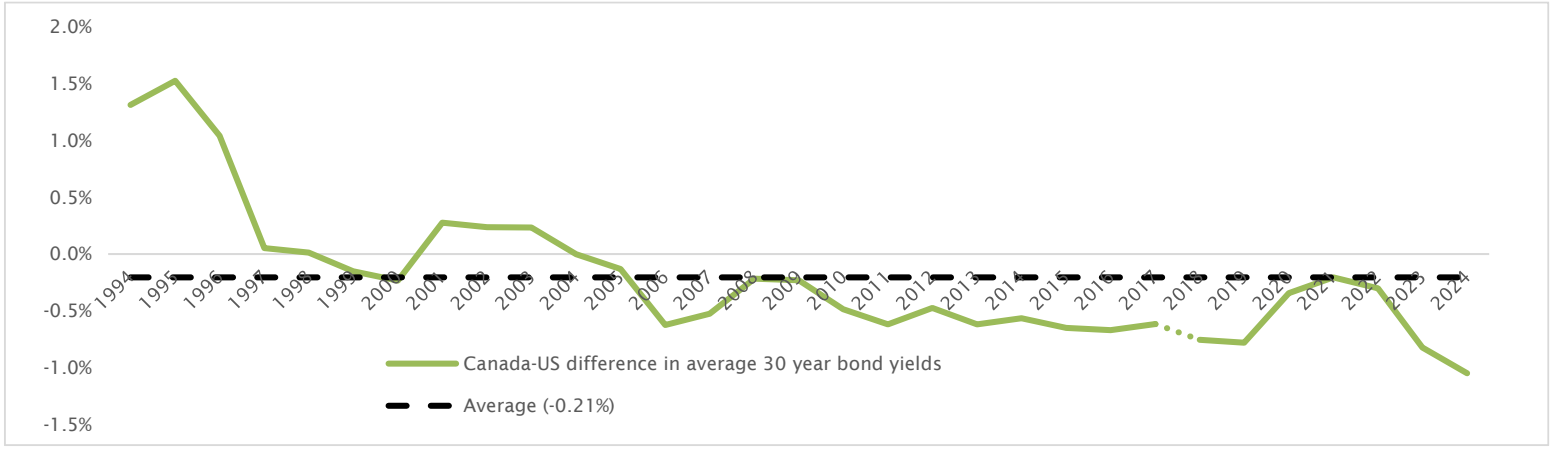


Source: Exhibit 5 in EB-2022-0200; Enbridge Gas application filed on October 31st, 2022

Long Canada Bond Forecast (LCBF) is an appropriate risk-free rate even when estimating Market Risk Premium (MRP) with US data

- **In the CAPM ROE determination, LEI chose a risk-free rate ("rf") determined using Canadian data and MRP determined using the US data**
- **LEI considered Canadian data as the starting point for both rf and MRP**
- **For rf, the LCBF was considered to be an appropriate proxy for several reasons:**
  - Canada and the US have comparable sovereign credit rating with no relative country risk premium
  - The last 30-year average difference between US and Canadian 30-year bond yield is insignificant
- **For the MRP, LEI initially considered the TSX total returns index (which resulted in an MRP of 2.81%)**
  - In LEI's opinion, this TSX estimate is inconsistent with investor risk premium and return requirement expectations, as investors are likely to consider their MRP opportunity cost based on the US-Canada integrated capital markets
- **LEI does not see any compelling reason to reject the LCBF as an appropriate proxy for rf, given the same (Canadian) investors accept LCBF as the relevant risk-free rate**

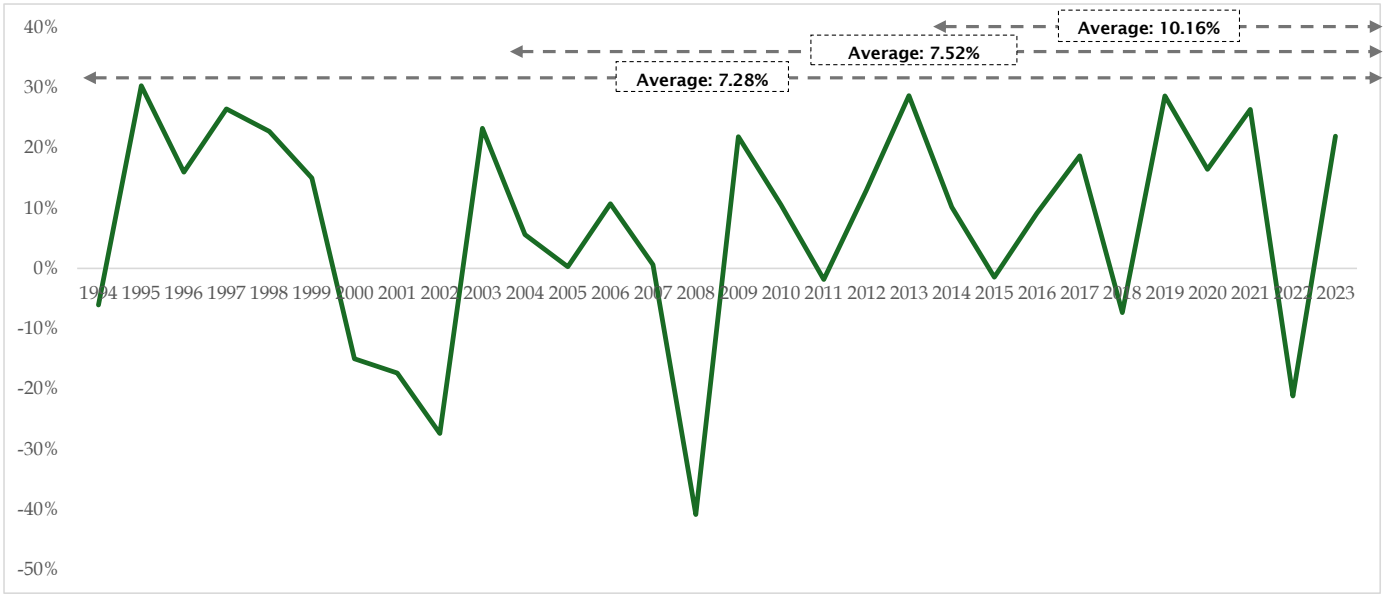
Canada versus US 30-year bond yield



The MRP estimate of 8.3% is reasonable

- **LEI has recommended an average MRP of 8.3% based on the average of 10-year, 20-year, and 30-year market data**
- **The recent market data will likely be a key input in investor expectations for the next five years**
- **While recent market data is undoubtedly important to consider, LEI does not believe it makes sense to ignore the data from the 1990s and the 2000s**
  - Federal Reserve policy rates, annual GDP growth rates, and unemployment rates align with those observed during the 1990s and 2000s
- **Given these facts, LEI believes its MRP estimate reasonably considers the period in question**

Average observed MRP (1994-2024)



Blume Adjustment arbitrarily inflates the beta

Blume Adjustment is not required, particularly for the regulated utility sector

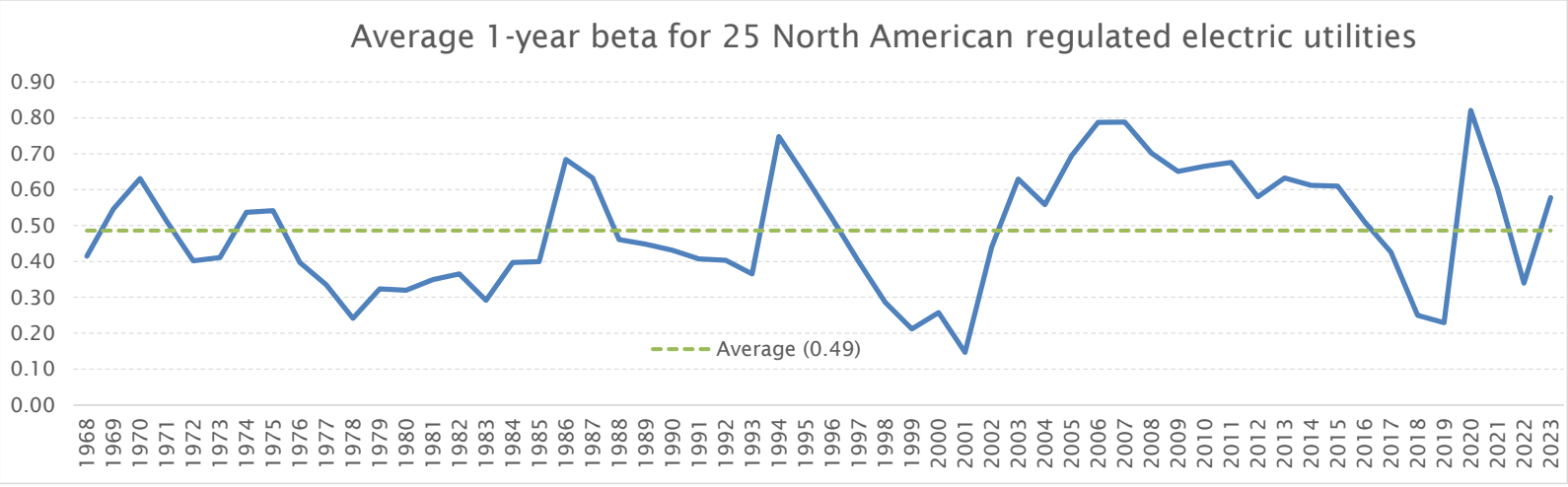
- No empirical evidence is presented by any party to justify the argument that the beta for regulated utilities moves towards one over the long term
- Weights applied for Blume Adjustment (2/3rd towards the raw beta and 1/3rd towards 1) are typically justified by citing a study from June 1975
- One of the reasons provided as justification for the Blume Adjustment in the original 1975 citation is that "*companies of extreme risk-either high or low-tend to have less extreme risk characteristics over time*"
  - In LEI's view, **regulated utility sector cannot be classified as "extreme risk" (low or high)**

LEI utilized a three-step process to estimate the beta

First LEI populated the raw beta for peer companies

Second The raw betas were unlevered using the operating leverage of each of the peer companies

Third The average unlevered beta of the peer group was re-levered using the OEB-allowed deemed capital structure



CAPM is sufficient to determine an appropriate ROE

- **LEI has recommended that the ROE be determined using the Capital Asset Pricing Model ("CAPM") only**
  - Using multiple methodologies does not necessarily result in superior ROE estimates
  - Circularity is a concern, e.g., the risk premium approach utilizes already-approved ROEs as a key variable in determining an appropriate measure for approved-ROEs
- **Using multiple methodologies with unrealistic assumptions will not reduce the uncertainties in estimating the ROE**
  - On the other hand, it may add more noise to the data, thereby obscuring a more reasonable and realistic ROE estimate

CAPM sufficiently accounts for real-world uncertainty	· Particularly when CAPM is paired with reasonable beta and market risk premium
CAPM is a flexible model	· CAPM can be adjusted fairly easily based on need · If a risk is not accounted for in the standard CAPM model (e.g., country risk premium), well-established methodologies exist to adjust the standard model
CAPM is widely used	· Other experts (such as Dr. Cleary) also acknowledge that "*CAPM is more heavily relied upon in practice due to its conceptual advantages*"

It may be better to average CAPM results with different inputs, rather than average results from different methods

Over-reliance on earnings forecasts is not suitable for determining authorized ROE

- **The DCF method's reliance upon estimates of future growth of cash flows is a key weakness**
- **Studies have shown that a naïve random walk (in which a given year's projected earnings are equal to the previous year's earnings plus random white noise) provides as accurate a forecast of long-term future earnings as analysts' forecasts**
- **When valuing a company or an asset using DCF methodology, a terminal value is frequently considered to capture the value of a business beyond the projection period**
  - DCF methodology is poorly suited for ROE determination using only a 3 to 5-year forward-looking outlook, and is likely to result in an unrepresentative estimate of the ROE
- **The ROE estimates using the DCF model are typically beyond the range of ~3 standard deviations above the average ROE authorized by North American regulators**

The Sages of Wall Street

Verdad, an asset management firm, tested all U.S. stocks from 1997 to 2021. They measured the median analyst estimate for growth over the next two to three years across a range of earnings metrics, and then compared the forecasts with the actual median outcomes over the next two to three years. They conclude that *the estimated growth rates systematically overshoot the actual outcomes.*

Source: Chingono, B. & Obenshain, G. Verdad. January 25th, 2023.

N. Wall Street's dirty secret: It's terrible at forecasting stocks

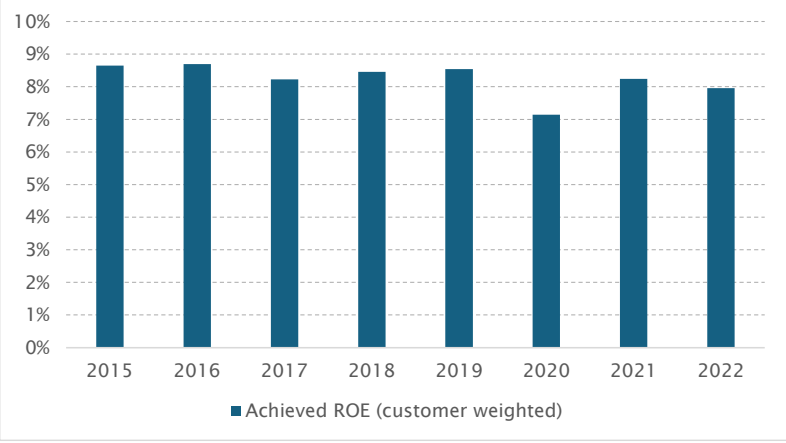
Over the period of 2002-2021, the average difference between the target price estimates by analysts and the actual prices has been 8.3%.... Analysts overestimated the final value (that is, the final value finished below the estimate) in 13 of the 20 years and underestimated the final value (the final value finished above the estimate) in the other 7 years…. This year [i.e., 2022], forecasters are set to miss the mark by their widest margin in about 15 years…They're on track to have overestimated the performance of the S&P 500 in 2022 by nearly 40%.

Source: Goodkind, CNN. December 28th, 2022.

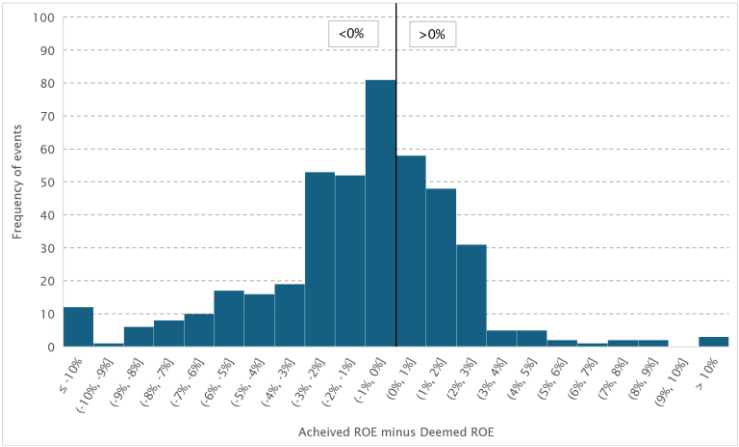
Observing achieved ROEs (relative to deemed ROEs) does not imply increased regulatory risk

- **The LEI Report stated: "*The revenue stability for distributors is visible in actual revenue earned per customer (CPI adjusted) since 2015… The achieved ROE (relative to deemed ROE) has also been generally stable since 2015, with the exception of 2020 which was affected by the COVID-19 pandemic.*"**
- **Nexus has argued that under-achievement relative to deemed ROEs shows "*evidence contradicting LEI's claim that Ontario's regulatory mechanisms reduce risk*"**
- **LEI disagrees. It is not prudent to conclude from the available data associated with achieved ROE for electricity distributors that Ontario's regulatory mechanisms do not reduce risk**
  - Since 2015, the achieved ROE for electricity distributors has been generally stable, ranging between ~8%-9%, other than in 2020
  - While certain distributors on average have under-earned (relative to deemed ROE), several distributors on average have also over-earned
  - If some distributors consistently underearn, setting a higher authorized ROE would not resolve their underlying reasons for underachievement
- **If there is a belief that there has been a significant change in their risk profile, the option exists for an assessment of their equity thickness via an application to the OEB**

Achieved ROE (2015-2022, customer weighted average)



Achieved ROE minus deemed ROE (distribution of events, 2015-2022)



Agenda

1	Key messages
2	Key areas of difference of opinion
3	**Appendix - Summary of LEI recommendations**

Summary of LEI recommendations (1/4)

#	Issue	Status quo	LEI recommendation
1	Impact of source of capital and types of ownership on the cost of capital	Variation in funding sources is typically accounted for however the ownership structure is not considered	The existing methodologies should be retained
2	Risk factors to be considered in determining the cost of capital parameters and capital structure	The recent risk assessments have considered business risks (energy transition risk, volumetric risk, operational risk, regulatory risk, and policy risk) and financial risks	The status quo should be retained
3	Key regulatory and rate-setting mechanisms impacting utility risk	• LEI reviewed five major OEB policy initiatives since 2006 • The OEB considers regulatory risks during risk assessments associated with equity thickness proceedings	• The policies reviewed since 2006 have slightly reduced the risks for electricity distributors • LEI recommends proactive impact assessments before material regulatory changes
4/5	Does the DSTDR methodology need to be revised?	DSTDR is set using 3-month BA rate plus a spread (as a cap for electricity distributors and transmitters only)	• BA rates are no longer used as the benchmark • Consider the average of 3-month CORRA futures rates for the upcoming year as reference rate • Applied as a cap for all utilities
6/7	Does the DLTDR methodology need to be revised?	DLTDR is set using 10-yr bond yield forecasts plus 10-30 yr spread plus A-rated Canadian utility bond yield spread (as a cap for electricity distributors and transmitters only)	• Consider reputable publicly available sources for 30-year bond yield forecasts • Applied as a cap for all utilities

Summary of LEI recommendations (2/4)

#	Issue	Status quo	LEI recommendation
8	LT debt transaction costs incurred by utilities	Utilities typically record the transaction costs as interest expense, amortizing them using the effective interest rate method over the term of the related debt instrument	Transaction costs can be considered as operating expenses, given the fluctuating nature of the expense
9	Implications of variances from the deemed capital structure	• The OEB considers the deemed capital structure • For ST debt proportion, 4% for distributors and transmitters; unfunded portion for others	The status-quo approach (considering deemed capital structure regardless of the actual capital structure) be retained
10	ROE methodology that satisfies FRS	• The base ROE was determined using the equity risk premium ("ERP") approach in 2009 • The ROE is updated annually using adjustment factors for LCBF and A-rated utility bond yield spread	• CAPM only to determine the base ROE (avg. estimate of 8.95%, low of 8.23%, and a high of 10.22%) • ROE to be updated annually using revised adjustment factors
11	ROE – relevance and consideration of debt and equity investor perspectives	• The allowed ROEs are legally required to meet the FRS • The DLTDR/DSTDR formulae are devised considering utility credit profiles	The existing approach meets the FRS
12	Setting capital structure in accordance with the FRS	Uniform ROE for all regulated entities and equity thickness adjusted based on business and financial risk assessment relative to the previous assessment	• Existing approach meets the FRS • Applicants should be required to include forward cash flow modeling and scenario analysis showing impact on credit metrics to support their proposals

Summary of LEI recommendations (3/4)

#	Issue	Status quo	LEI recommendation
13	Appropriate capital structure for single vs. multiple-asset transmitters	40% equity thickness for all electricity transmitters since 2006 (same as electricity distributors)	Status quo should be retained
14	Monitoring mechanism to test the reasonableness of the cost of capital methodology	The OEB conducts an ongoing monitoring process through quarterly reports for internal review purposes only	Status quo should be retained
15	Review mechanism to ensure adherence to FRS	The OEB regularly confirms that the FRS is being met in its annual cost of capital update letters	• Status quo should be retained • In addition, the OEB should mandate annual reporting of credit ratings and details regarding new debt and equity issuances
16	Timing of the annual cost of capital parameters updates	Updated parameters published in October or November for rates taking effect in January or May of the following year	Status quo should be retained
17	Defined interval to review the cost of capital policy	• Review every five years • Between reviews, utilities have an off-ramp mechanism and have the option to file applications for review	Status quo should be retained
18	Frequency for updating cost of capital parameters and/or capital structure	Changes in cost of capital parameters and capital structure are implemented once a utility files its cost of service application	Status quo should be retained

Summary of LEI recommendations (4/4)

#	Issue	Status quo	LEI recommendation
19	Approach for updating cost of capital parameters and/or capital structure for utilities in the middle of an approved rate term	Utilities only transition to the new cost of capital parameters and capital structure once they file their cost of service application, not in the middle of an approved rate term	• Status quo should be retained • In addition, the OEB should introduce an option to request implementation prior to rebasing, so long as – (i) the utility has more than 60% of its rate term remaining, and (ii) deviations in the ROE should be material (100 bps or more)
20/21	Prescribed interest rates for DVAs CWIP accounts – should existing methodology be changed?	• For DVAs - 3-month BA rate plus 25 bps • For CWIP accounts - FTSE Canada (formerly DEX) Mid Term Bond Index All Corporate yield	• For DVAs – link to approved DSTDR • For CWIP accounts – retain status-quo
22	Appropriate carrying charges for cloud computing deferral account	The OEB treats the cloud computing deferral account as a regular DVA account	• A deemed WACC is necessary as a means of aligning incentives for utilities to transition to cloud computing solutions • The OEB should employ a deemed capital additions approach, which allows deemed WACC on the unamortized portions of the cloud computing contracts

First Nations issues are critical, however are best addressed in separate proceeding

- LEI recognizes that Indigenous groups and/or First Nations are taking a greater role in the energy sector
- The Supreme Court of Canada has confirmed that decisions related to permits or other approvals issued by a regulatory tribunal (like the OEB) can trigger the duty to consult
- Aside from mandatory consultation requirements for infrastructure projects, Indigenous communities are taking a leading role in several new programs and projects in Ontario's energy sector alongside utilities
- First Nations participation could be viewed as a factor reducing risk

Select issues raised by Indigenous groups and/or First Nations ("IGFN") in the IR process

Smaller asset base compared to large utilities

- Investments by IGFN are on a single-asset basis and do not benefit from risk averaging that large regulated utilities benefit from, given their assets of varying risk attributes

Unique IGFN risks

- If FRS is applied on a on a class basis or from a large utility perspective, unique risks faced by IGFN investors may be obfuscated

IGFN-specific impacts

- How may current / recommended approaches impact ability of IGFN partnering with a utility, IGFN' ability to secure favorable financing terms, and IGFN reliance on government funding

IGFN-specific regulatory barriers

- Are there specific regulatory barriers faced by IGFN?