

## Authorized Return on Equity for Canadian and U.S. Gas and Electric Utilities Volume V, May 25, 2017

### INTRODUCTION

Concentric Energy Advisors, Inc. (Concentric) is pleased to publish the fifth edition of this newsletter. Each edition summarizes the latest information available on authorized ROEs and common equity ratios for over 40 Canadian gas and electric utilities. For comparison purposes, the newsletter also presents the average and median authorized ROEs and common equity ratios for U.S. gas and electric distributors, as reported by SNL Financial's Regulatory Research Associates.

### ROE

Average and median allowed ROEs for both Canadian and U.S. utilities in 2017 remain little changed from their 2016 levels. The 2017 median ROE for gas distributors in Canada is 8.93% vs. 9.25% in the U.S. The 2017 median ROE for electric distribution and electric transmission is 8.50% in Canada and 9.60% in the U.S. Factoring into these averages were modest 20 basis point increases in the Alberta allowed ROEs, offset by the reduction in Ontario allowed ROEs as the Board's formula re-set with lower bond yields. Ontario, has a formula linked to both government bond yields and utility bond yields. The OEB's formula produces an 8.78% ROE for 2017, based on a long Canada bond yield input of 2.04%.

The sustained period of very low government bond yields has created challenges for both regulators and analysts as they grapple with the appropriate level of bond yields for cost of capital models. Where the Capital Asset Pricing Model (CAPM) is employed, it is recognized that central banks have depressed government bond yields, requiring some form of adjustment to produce reasonable results. The Discounted Cash Flow (DCF) model is linked to utility dividend yields, and is therefore not directly tied to government bond yields. But low bond yields have driven utility dividend yields lower, and when combined with strong stock valuations, the results of the DCF model are also impacted. In response, regulators and analysts are incorporating adjustments to traditional cost of capital models, or the ranges they produce, to reflect these market circumstances. For example, the British Columbia Utilities Commission, in its 2016 decision for FortisBC Energy, acknowledged that the current risk-free rate has been impacted by the accommodative monetary policy of global central banks, and that an

adjustment was necessary to reflect the normalization in interest rate conditions expected in capital markets. In Alberta, the Alberta Utilities Commission recognized in the 2016 generic cost of capital decision that the CAPM results were being distorted by market conditions and therefore placed more weight than usual on the DCF model. The Régie in Québec had reached a similar conclusion in its 2013 Hydro Québec decision, recognizing that an adjustment was necessary to the risk-free rate used in the CAPM to reflect more sustainable long-term bond yields.

Additionally, our research has shown that the "equity risk premium" allowed by regulators over the government bond yield moves in an inverse relationship to interest rates. When interest rates are high, the risk premium is smaller, and vice versa. Significant changes in interest rates lead to corresponding changes in the equity risk premium. Regulators have responded in various ways to this relationship so as to moderate the impacts of volatile capital market conditions. For example, in Ontario, gradualism is implicit in the operation of the OEB's adjustment formula where changes in government and corporate bond yields result in a smaller change in the allowed ROE for regulated utilities. The OEB staff issued a report in January 2016 regarding the effectiveness of the ROE formula that was modified in 2009 to consider both changes in government and corporate bond yields. According to the OEB report, the revised formula has worked as intended since 2009, and has generally been well-received by utilities and stakeholders.

A notable trend over the past several years has been the closure of the gap that had developed between median allowed ROEs for Canadian and U.S. utilities. At its peak in 2007–08, the difference was 141 basis points for gas distributors, and 164 basis points for electric distributors. In 2017, the difference has narrowed to 32 and 110 basis points, respectively. ROEs for Canadian electric transmission companies are now equal to those awarded to Canadian electric distributors, and 110 basis points below those allowed U.S. electric distributors. All transmission companies but AltaLink and ATCO are provincially or municipally owned corporations.

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### **EQUITY RATIOS**

The median authorized common equity ratio has declined slightly over the past few years in both Canada and the U.S. The gas distribution equity ratio is now 39.25% in Canada, vs. 51% in the U.S. The median electric distribution equity ratio is now 37% in Canada and 49.4% in the U.S. Electric transmission equity ratios have risen to 37% in Canada.

The prevailing differences between allowed equity ratios in Canada and the U.S. remain attributable to a few factors. Regulators in both countries rely on peer group analysis, which reinforces existing levels of allowed equity ratios. Regulators in Canada also look for material differences in risk or financial metrics before changing the allowed equity ratio, so they tend to remain relatively stable. While credit rating agencies notice the greater leverage of Canadian companies, and rank some of these utility companies as “Aggressive” in terms of financial risk, most companies have been able to maintain A or A- level credit ratings, so the regulatory response has been muted.

### **RECENT DECISIONS**

Several important cases were decided in the second half of 2016 and first quarter of 2017. In British Columbia, the Commission maintained the allowed return of 8.75% and the deemed equity ratio of 38.5% for FortisBC Energy, Inc., the gas distributor which serves as the “benchmark” for other BC gas and electric utilities, and is used by the Yukon Utilities Board for similar purposes.

In Alberta, the Commission issued its decision in the generic cost of capital proceeding, establishing the approved ROE and capital structures for the Alberta utilities for 2016 and 2017. The generic ROE was set at 8.30% for 2016 and 8.50% for 2017 for regulated utilities in Alberta, and the common equity ratio was deemed at 37.0% for most Alberta transmission and distribution utilities, except AltaGas, which was granted a common equity ratio of 41.0%.

In Newfoundland, the Board maintained Newfoundland Power’s deemed equity ratio of 45.0%, while reducing its authorized ROE to 8.50%. A decision was also issued in Newfoundland and Labrador Hydro’s long-standing rate case, in which the government-owned utility was granted an allowed ROE of 8.50% and a deemed equity ratio of 25.2%.

The Yukon Utilities Board recently issued a decision reinstating an ROE premium of 25 basis points for ATCO Electric Yukon (AEY), which places the ROE at 9.0%. The Board determined that a risk premium was justified over the authorized ROE for the BC benchmark utility due to the small size of AEY.

The Ontario Energy Board recently conducted a hearing to consider the request of Ontario Power Generation (OPG) to increase its deemed equity ratio from 45% to 49% due to OPG’s shift in generation mix from hydro to nuclear. A decision is expected from the OEB later this year.

### **BOND YIELDS**

As shown in the chart on page 4, long-term government bond yields (considered the risk-free rate of return) in both Canada and the U.S. have increased by approximately 50 basis points since reaching a trough in July 2016. The accommodative policy of central banks combined with modest economic growth and a low inflationary environment have driven bond yields steadily lower in recent years. Regulators and analysts have responded with a combination of adjustments, equilibrium level bond yields, and alternative models to account for these anomalous market conditions. Consensus forecasts call for increasing bond yields over the next several years, but a complex mix of international and North American factors will determine the actual path of interest rates. In the interim, government bond yields remain a source of considerable uncertainty in financial markets and regulatory proceedings.

**Authorized Return on Equity  
 for Canadian and U.S. Gas and Electric Utilities <sup>1</sup>**

	Return on Common Equity (%)			Common Equity Ratio (%)		
	2015	2016	2017	2015	2016	2017

Canadian Gas Distributors <sup>2</sup>						
AltaGas Utilities Inc. <sup>3</sup>	8.30	8.30	8.50	42.00	41.00	41.00
ATCO Gas <sup>3</sup>	8.30	8.30	8.50	38.00	37.00	37.00
Centra Gas Manitoba Inc.	N/A	N/A	N/A	30.00	30.00	30.00
Enbridge Gas Distribution Inc. <sup>4</sup>	9.30	9.19	8.78	36.00	36.00	36.00
Enbridge Gas New Brunswick	10.90	10.90	10.90	45.00	45.00	45.00
FortisBC Energy Inc.	8.75	8.75	8.75	38.50	38.50	38.50
Gaz Métro Limited Partnership	8.90	8.90	8.90	38.50	38.50	38.50
Gazifère Inc.	9.10	9.10	9.10	40.00	40.00	40.00
Heritage Gas Limited	11.00	11.00	11.00	45.00	45.00	45.00
Pacific Northern Gas Ltd.	9.50	9.50	9.50	46.50	46.50	46.50
Pacific Northern Gas (N.E.) Ltd. (Fort St. John/Dawson Creek)	9.25	9.25	9.25	41.00	41.00	41.00
Pacific Northern Gas (N.E.) Ltd. (Tumbler Ridge)	9.50	9.50	9.50	46.50	46.50	46.50
SaskEnergy Inc.	8.75	8.30	8.30	37.00	37.00	37.00
Union Gas Limited <sup>5</sup>	8.93	8.93	8.93	36.00	36.00	36.00
<b>Average</b>	9.27	9.22	9.22	40.00	39.86	39.86
<b>Median</b>	9.10	9.10	8.93	39.25	39.25	39.25
U.S. Gas Distributors <sup>6</sup>						
Average of all Rate Cases Decided in the Year	9.60	9.49	9.60	49.93	49.69	51.57
Median of all Rate Cases Decided in the Year	9.68	9.50	9.25	50.40	50.00	51.00
Canadian Electric Distributors <sup>2</sup>						
ATCO Electric Ltd. <sup>3</sup>	8.30	8.30	8.50	38.00	37.00	37.00
ENMAX Power Corporation <sup>3</sup>	8.30	8.30	8.50	40.00	37.00	37.00
EPCOR Distribution Inc. <sup>3</sup>	8.30	8.30	8.50	40.00	37.00	37.00
FortisAlberta Inc. <sup>3</sup>	8.30	8.30	8.50	40.00	37.00	37.00
FortisBC Inc.	9.15	9.15	9.15	40.00	40.00	40.00
Hydro-Québec Distribution	8.20	8.20	8.20	35.00	35.00	35.00
Manitoba Hydro	N/A	N/A	N/A	25.00	25.00	25.00
Maritime Electric Company Limited	9.75	9.35	9.35	41.90	40.90	40.00
Newfoundland and Labrador Hydro	8.80	8.50	8.50	25.20	25.20	25.20
Newfoundland Power Inc.	8.80	8.50	8.50	45.00	45.00	45.00
Nova Scotia Power Inc.	9.00	9.00	9.00	37.50	37.50	37.50
Ontario's Electric Distributors <sup>4</sup>	9.30	9.19	8.78	40.00	40.00	40.00
Saskatchewan Power Corporation	8.50	8.50	8.50	40.00	40.00	40.00
<b>Average</b>	8.73	8.63	8.67	37.51	36.66	36.59
<b>Median</b>	8.65	8.50	8.50	40.00	37.00	37.00
U.S. Electric Distributors <sup>6</sup>						
Average of all Rate Cases Decided in the Year	9.60	9.60	9.68	49.26	48.60	47.42
Median of all Rate Cases Decided in the Year	9.53	9.60	9.60	50.00	49.55	49.40

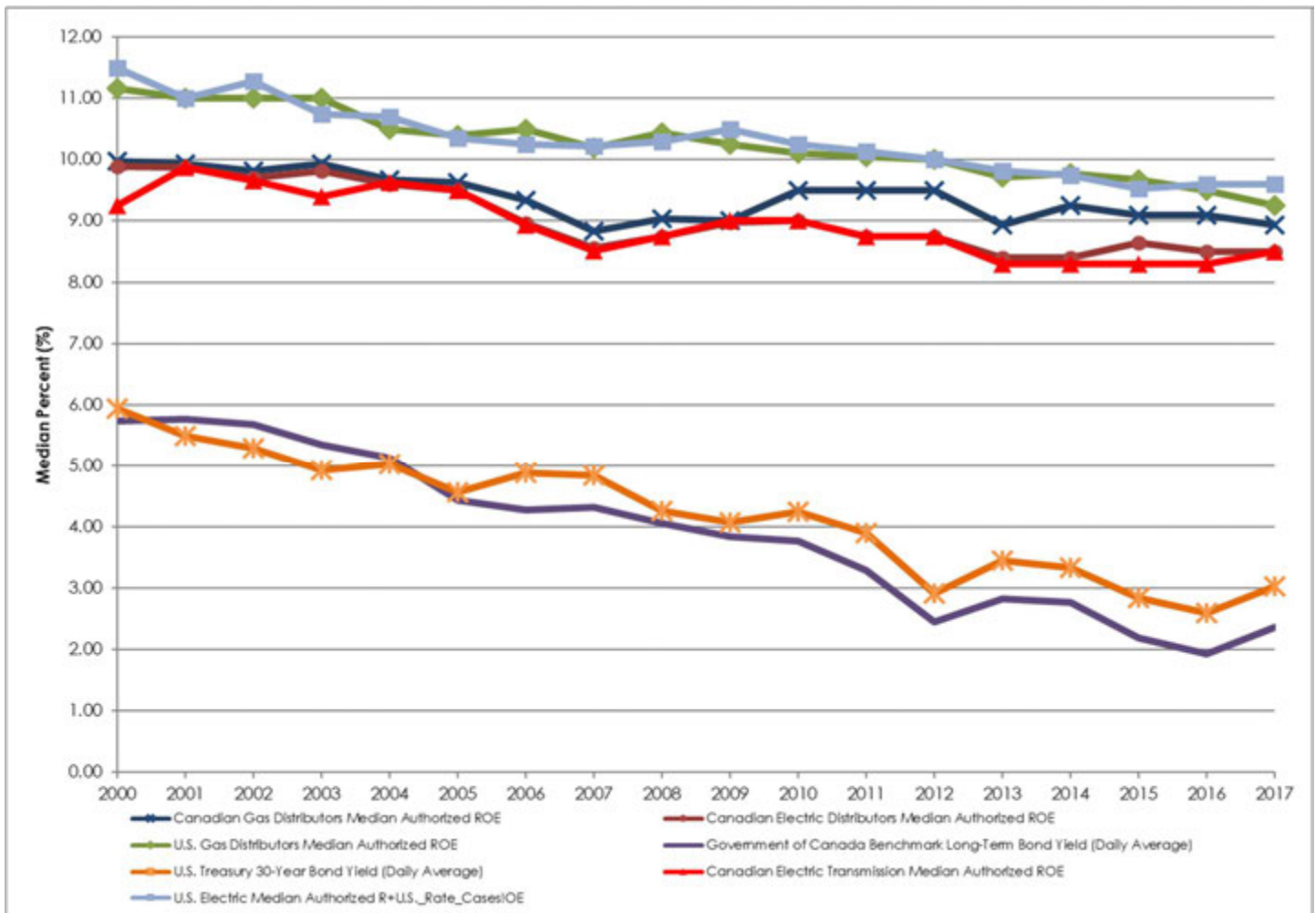
**Authorized Return on Equity  
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	Return on Common Equity (%)			Common Equity Ratio (%)		
	2015	2016	2017	2015	2016	2017

Canadian Electric Transmission Companies <sup>2</sup>						
AltaLink Management Ltd. <sup>3</sup>	8.30	8.30	8.50	36.00	37.00	37.00
ATCO Electric Ltd. <sup>3</sup>	8.30	8.30	8.50	36.00	37.00	37.00
ENMAX Power Corporation <sup>3</sup>	8.30	8.30	8.50	36.00	37.00	37.00
EPCOR Transmission Inc. <sup>3</sup>	8.30	8.30	8.50	36.00	37.00	37.00
Hydro One Networks Inc. <sup>4</sup>	9.30	9.19	8.78	40.00	40.00	40.00
Hydro-Québec TransÉnergie	8.20	8.20	8.20	30.00	30.00	30.00
<b>Average</b>	8.45	8.43	8.50	35.67	36.33	36.33
<b>Median</b>	8.30	8.30	8.50	36.00	37.00	37.00

**Economic Indicators (% Yields) <sup>7</sup>**

	2015	2016	2017
Government of Canada Benchmark Long-Term Bond Yield	2.19	1.92	2.36
U.S. Treasury 30-Year Bond Yield	2.84	2.60	3.04
Bloomberg Fair Value Canada A-rated Utility Bond Yield	3.82	3.68	3.82
Moody's A-rated Utility Bond Index (U.S.)	4.12	3.93	4.18



**NOTES**

1. Data for an expanded group of Canadian gas transmission companies is contained in the Concentric Energy Advisors Return on Equity Database.
2. Allowed in rates for the corresponding year; where the year overlaps, the rate/ratio shown prevails for the majority of the year. Sources: Regulatory decisions and documents; annual information forms; annual reports.
3. The Alberta Utilities Commission's 2016 decision in the Generic Cost of Capital proceeding was effective for rate years 2016 and 2017. Returns on common equity and common equity ratios were adjusted for 2016. This also affects the category averages for 2016 as compared to those reported last year.
4. Beginning in 2014, the Ontario Energy Board updates cost of capital parameters for setting rates in cost of service applications only once per year.
5. Union's ROE per settlement agreement in its five-year incentive regulation plan for 2014–2018.
6. Source: SNL Financial LC's Regulatory Research Associates Division. Data for 2017 includes decisions through April 13, 2017.
7. Average daily yield. Source: Bloomberg Finance L.P. Data for 2017 through April 12, 2017.

\* N/A indicates the data are not available. In recent years, the Manitoba Board has not established an authorized ROE for Manitoba Hydro, but has considered whether the company has sufficient income to meet certain interest coverage ratios and capital coverage ratios at its target debt/equity ratio. Similarly, Centra Gas Manitoba previously operated under an ROE adjustment mechanism tied to government bond yields. Centra Gas contended in its 2013/14 GRA filing that the formula was not producing reasonable returns. The Board directed Centra Gas to propose an update to the ROE that is reflective of an appropriate level to be used in the feasibility test.

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