

1 **Q. McShane Evidence, Appendix G - At p. G-4, it indicates that Ms. McShane has**
2 **provided Expert Testimony on Rate of Return and Capital Structure for Maritime**
3 **Electric in 2010. Please provide a copy of that testimony/evidence, and if Ms.**
4 **McShane has provided evidence more recently, please provide a copy of that**
5 **testimony/evidence as well.**

6
7 A. Ms. McShane's 2010 direct and rebuttal testimonies for Maritime Electric are provided as
8 CA-NP-364 Attachment 1.pdf and CA-NP-364 Attachment 2.pdf respectively. Ms.
9 McShane has not filed more recent testimony for Maritime Electric.

Maritime Electric Company Limited

Testimony of Kathleen McShane
April 2010

**MARITIME ELECTRIC
COMPANY, LIMITED**

**TESTIMONY
of
KATHLEEN C. MCSHANE**

FOSTER ASSOCIATES, INC.



April 2010

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APPENDIX A: QUALIFICATIONS OF KATHLEEN C. McSHANE

SCHEDULES

I. INTRODUCTION AND CONCLUSIONS

A. INTRODUCTION

My name is Kathleen C. McShane and my business address is 4550 Montgomery Avenue, Suite 350N, Bethesda, Maryland 20814. I am President of Foster Associates, Inc., an economic consulting firm. I hold a Masters in Business Administration with a concentration in Finance from the University of Florida (1980) and the Chartered Financial Analyst designation (1989).

I have testified on issues related to cost of capital and various ratemaking issues on behalf of local gas distribution utilities, pipelines, electric utilities and telephone companies in more than 200 proceedings in Canada and the U.S., including the Island Regulatory and Appeals Commission. My professional experience is provided in Appendix A.

I have been requested by Maritime Electric Company, Limited (MECL) to provide an expert opinion on the reasonableness of its requested return on equity (ROE) of 9.75% on forecast common equity ratios of 41.8% and 41.0% equity for the 2010 and 2011 test years respectively.

B. CONCLUSIONS

In my opinion, MECL's proposed returns for 2010 and 2011 comprising an allowed ROE of 9.75% on common equity ratios of 41.8% and 41.0% are not only reasonable, but are relatively low, based on the following considerations:

1. MECL's proposed ROE of 9.75% on 2010 and 2011 common equity ratios averaging 41.4% compares to an average return adopted for Canadian utilities during 2009-2010 comprised of an ROE of approximately 9.5% on a common equity ratio of approximately 40.5%.

2. MECL faces higher business risk than the typical Canadian utility but has a similar capital structure. The slightly higher overall return, comprised of both capital structure and ROE, proposed by MECL relative to the average overall return adopted for its Canadian peers is warranted to compensate for MECL's higher than average business risk.
3. MECL's proposed return of 9.75% on an average 2010-2011 common equity ratio of 41.4% is materially lower than the average returns adopted for U.S. electric and gas utilities, which have, since 2007, averaged 10.5% and 10.2% respectively on a common equity ratio of approximately 49%.
4. MECL's proposed return comprised of a 9.75% ROE on an average 41.4% common equity ratio is significantly lower than returns available to its U.S. peers. MECL's proposed 9.75% ROE on an average 41.4% common equity ratio is significantly lower than:
- a. The 11.1%-11.3% ROE earned by a sample of comparable U.S. electric utilities on an actual common equity ratio of 44%.
 - b. The 10.1% to 10.7% ROE which is forecast to be earned by the comparable U.S. electric utilities from 2010 to 2014/15 on a common equity ratio of 49%.
 - c. The most recent allowed returns for the regulated operations of the proxy utilities, comprising a 10.5% ROE on a common equity ratio of close to 50%.
 - d. The discounted cash flow (DCF) cost of equity estimated for the sample of comparable U.S. electric utilities in the range of 10.25% to 10.75% at a market value common equity ratio of approximately 52%.

II. THE FAIR RETURN STANDARD

MECL's proposed ROE of 9.75% on forecast common equity ratios of 41.8% and 41.0% needs to be assessed within the context of the fair return standard. The requirements to meet the fair return standard arise from legal precedents¹ which are echoed in numerous regulatory decisions across North America.² A fair return gives a regulated utility the opportunity to:

1. earn a return on investment commensurate with that of comparable risk enterprises;
2. maintain its financial integrity; and,
3. attract capital on reasonable terms.

The legal precedents make it clear that the three requirements are separate and distinct. Moreover, none of the three requirements is given priority over the others. The fair return standard is met only if all three requirements are satisfied. In other words, the fair return standard is only satisfied if the utility can attract capital on reasonable terms and conditions, its financial integrity can be maintained **and** the return allowed is comparable to the returns of enterprises of similar risk.

¹ The principal court cases in Canada and the U.S. establishing the standards include *Northwestern Utilities Ltd. v. Edmonton (City)*, [1929] S.C.R. 186; *Bluefield Water Works & Improvement Co. v. Public Service Commission of West Virginia*, (262 U.S. 679, 692 (1923)); and, *Federal Power Commission v. Hope Natural Gas Company* (320 U.S. 591 (1944)).

² The three requirements were summarized by the National Energy Board (RH-2-2004, Phase II) as follows:

“The Board is of the view that the fair return standard can be articulated by having reference to three particular requirements. Specifically, a fair or reasonable return on capital should:

- be comparable to the return available from the application of the invested capital to other enterprises of like risk (the comparable investment standard);
- enable the financial integrity of the regulated enterprise to be maintained (the financial integrity standard); and
- permit incremental capital to be attracted to the enterprise on reasonable terms and conditions (the capital attraction standard).”

The three requirements were reiterated in the *Reasons for Decision, Trans Québec and Maritimes Pipelines Inc.*, RH-1-2008, March 2009 (pages 6-7).

A fair return on the capital provided by investors not only compensates the investors who have put up, and continue to commit, the funds necessary to deliver service, but benefits all stakeholders, including ratepayers. A fair and reasonable return on the capital invested provides the basis for attraction of capital for which investors have alternative investment opportunities. A fair return preserves the financial integrity of the utility, that is, it permits the utility to maintain its creditworthiness, as demonstrated by the level of its credit metrics and debt ratings. Fair compensation on the capital committed to the utility provides the financial means to pursue technological innovations and build the infrastructure required to support long-term growth in the underlying economy.

An inadequate return, on the other hand, undermines the ability of a utility to compete for investment capital. Moreover, inadequate returns act as a disincentive to expansion, may potentially degrade the quality of service or deprive existing customers from the benefit of lower unit costs that might be achieved from growth. In short, if the utility is not provided the opportunity to earn a fair and reasonable return, it may be prevented from making the requisite level of investments in the existing infrastructure in order to reliably provide utility services for its customers.

III. RELATIONSHIP BETWEEN CAPITAL STRUCTURE AND RETURN ON EQUITY

The overall cost of capital to a firm depends, in the first instance, on business risk. Business risk relates largely to the assets of the firm. The business risk of a utility is the risk of not earning a compensatory return on the invested capital and of a failure to recover the capital that has been invested.

The cost of capital is also a function of financial risk. Financial risk refers to the additional risk that is borne by the equity shareholder because the firm uses debt to finance a portion of its assets. The capital structure, comprised of debt and common equity, can be viewed as a summary measure of the financial risk of the firm. The use of

debt in a firm's capital structure creates a class of investors whose claims on the cash flows of the firm take precedence over those of the equity holder. Since the issuance of debt carries unavoidable servicing costs which must be paid before the equity shareholder receives any return, the potential variability of the equity shareholder's return rises as more debt is added to the capital structure.

Simply put, as the debt ratio rises, so do the costs of debt and equity. For a given level of business risk, the return on equity that would be fair and reasonable at a common equity ratio of 40% would be lower than the return on equity that would be fair and reasonable at a common equity ratio of 30%.

In summary, the various components of the cost of capital are inextricably linked; it is impossible to determine if the return on equity is fair without reference to the capital structure of the utility. Thus, the determination of a fair return must take into account all of the elements of the cost of capital, including the capital structure and the cost rates for each of the types of financing. It is the overall return on capital which must meet the requirements of the fair return standard.

IV. BUSINESS AND FINANCIAL RISK OF MECL

As noted above, the business risk of a utility is the risk of not earning a compensatory return on the invested capital and of a failure to recover the capital that has been invested. Business risk arises from demand, competitive, supply, operating, political and regulatory factors. While different business risk categories can be identified, they are inter-related. The regulatory framework, for example, is frequently designed around the inherent demand/competitive risks.

Business risks have both short-term and longer-term aspects. Short-term business risks relate primarily to year-to-year variability in earnings due to the combination of fundamental underlying economic factors and the existing regulatory framework. Long-term risks are important because utility assets are long-lived. Long-term business risks

comprise factors that may negatively impact the long-run viability of the utility and impair the ability of the shareholders to fully recover their invested capital and a compensatory return thereon. As utilities represent capital-intensive investments with very limited alternative uses, whose committed capital is recovered over an extended period of time, it is the long-term risks that are of primary concern to the investor.

Regulatory risk relates to the framework that determines how the fundamental business risks are allocated between ratepayers and shareholders. Regulatory risk can be considered either as a component of business risk or as a separate risk category. The regulatory framework is dynamic: it is subject to change as a result of shifts in underlying fundamental risk factors including the competitive environment, energy policy, and regulatory philosophy.

Because regulated firms are generally regulated on the basis of annual revenue requirements, there has been a tendency to downplay longer-term risks, essentially on the grounds that the regulatory framework provides the regulator an opportunity to compensate the shareholder for the longer-term risks when they are experienced. This premise may not hold. First, competitive factors and ratepayer resistance may forestall higher return awards when the risk materializes. Second, no regulator can bind his or her successors and thus guarantee that investors will be compensated for longer-term risks when they are incurred in the future.

MECL is a relatively small electric utility in comparison to other investor-owned electric utilities in Canada. The table below provides a perspective on its relative size by reference to customers, energy sales and rate base for the other major investor-owned electric utilities in Canada. MECL is less than one-third the size of the median investor-owned electric utility in all three categories.

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Table 1

Major Investor-Owned Electric Utilities	Customers (Thousands)^{1/}	Energy Sales (GWh)^{2/}	Rate Base (\$ Millions)^{3/}
Maritime Electric	74	1,036	301
ATCO Electric Distribution	203	10,123	849
FortisAlberta	483	23,740	1,538
FortisBC	113	3,482	976
Newfoundland Power	241	5,355	867
Nova Scotia Power	486	12,957	2,883

177 ^{1/}ATCO Electric Dx (2008), all others forecast 2010.178 ^{2/}ATCO Electric Dx (2008), Nova Scotia Power (2009), all others forecast 2010.179 ^{3/}ATCO Electric Dx (2008), Nova Scotia Power (2009) all other forecast 2010. MECL is 2010 forecast
180 total investor-supplied capital.

181

182 A small utility cannot diversify its risks to the same extent as larger utilities whose assets,
183 geography and economic bases are less concentrated. Negative events are likely to have
184 greater impact on the earnings or viability of a smaller company. The impact of smaller
185 size for utilities with rated debt is frequently exhibited in lower debt ratings for these
186 companies despite financial parameters that are stronger than their larger peers.

187

188 To illustrate, in its June 2009 rating report for FortisBC, an electric utility, DBRS called
189 the company's small size a "challenge" and stated,

190

191 "FortisBC is a small utility compared with the dominant utility in the province,
192 the Crown-owned BC Hydro, and serves a rural and low-population density
193 region in south-central British Columbia. To some extent, the small size and
194 franchise area limit opportunities for growth, operating efficiencies, and
195 economies of scale as they relate to PBR."

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FortisBC, which had a rate base of over \$900 million in 2009, has maintained stronger credit metrics (e.g., interest coverage ratios) than Terasen Gas, the benchmark BC utility, due to an allowed common equity ratio and ROE which have been higher than Terasen Gas's.³ However, FortisBC is only rated BBB(High) by DBRS and Baa2 by Moody's, compared to Terasen Gas's ratings of A by DBRS and A3 by Moody's.

MECL's small size and island location give rise to the concentration of the Company's assets in a limited geographic area. The concentration of its assets means that a major incident is more likely to negatively impact the entire Maritime Electric system than it would a more geographically dispersed system.

MECL's service area is largely rural, with one major population center, Charlottetown. Agriculture, fisheries, tourism and government remain the backbone of the provincial economy, although over the past decade, the development of the technology sector, particularly the aerospace industry, has been contributing to the diversification of the economy. While the aerospace industry and the relatively large public administration sector served to cushion the impact of the recession on the province, the recovery is also expected to be more modest than for Canada as a whole. Over the longer-term, the Conference Board of Canada has forecast that real growth in GDP of Prince Edward Island will lag the rest of Canada. From 2013-2030, the Conference Board of Canada expects real annual GDP growth in the province to average 1.2%, compared to 2.0% for Canada. Other forecast key economic indicators over the longer-term (2013-2030), compared to those for Canada as a whole, include the following:

³ Until December 2009, when the British Columbia Utilities Commission raised Terasen Gas's allowed common equity ratio from 35% to 40%, FortisBC's allowed common equity ratio was five percentage points higher than Terasen Gas's. FortisBC's allowed ROE remains 0.40% higher than Terasen Gas's allowed ROE (9.90% versus 9.5%).

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Table 2

	PEI	Canada
Personal Disposable Income	3.4%	3.8%
Retail Sales	3.4%	3.9%
Housing Starts	-2.1%	-0.7%
Population	0.7%	1.0%
Employment	0.2%	0.7%
Service Producing Industries	1.2%	1.9%

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Source: The Conference Board of Canada, *Provincial Outlook 2009, Long-Term Economic Forecast*, February 2009 (Tables 1, 3 and 13).

228 The longer-term growth outlook, when coupled with a provincial energy strategy with an
 229 objective of reducing greenhouse gas emissions through multiple initiatives, including
 230 improved energy efficiency and conservation, points to limited growth potential for
 231 MECL.

232

233 With respect to operating and supply risks, MECL's Island location exposes the
 234 Company to relatively high risk. MECL is dependent on NB Power for over 80% of its
 235 energy requirements. The remainder is largely supplied from wind turbines located on
 236 the island. The off Island energy supply is delivered from the mainland grid via two
 237 submarine cables. While MECL owns some generation of its own (capacity of 150 MW)
 238 to serve as back up in case of supply interruption and in periods of peak demand, it is
 239 relatively high cost compared to off Island production. Generation assets, which
 240 inherently face higher operating and capital cost recovery risks than "wires" (distribution
 241 and transmission) assets, comprise just under 25% of MECL's total net utility property,
 242 plant and equipment.

243

244 MECL's supply cost recovery risks are mitigated through the operation of the Energy
 245 Cost Adjustment Mechanism (ECAM) approved by the Commission in Orders UE05-01
 246 and UE05-05, which allow for recovery (refund) of purchased and produced energy costs
 247 that are above (below) levels reflected in base rates. Since the adoption of the ECAM,
 248 the actual costs of purchased and produced energy have exceeded the levels included in
 249 base rates. The accrued ECAM costs are being recovered over a 12-month amortization

period. While MECL has the opportunity to recover its incurred energy costs, the deferral of the recovery has a negative impact on cash flow, requiring incremental financing between the time of cost incurrence and cost recovery.

MECL's ability to recover variances between forecast and actual energy costs through a cost adjustment mechanism is not unique. Most Canadian utilities that purchase either electricity or natural gas have deferral or variance accounts which allow for pass-through of variances between forecast and actual energy costs. Both Newfoundland Power and Nova Scotia Power, for example, have mechanisms for pass-through of fuel and purchased energy costs.⁴ However, other than its ECAM, in contrast to many of its Canadian peers, MECL has no other deferral or variance accounts. For example, Newfoundland Power's revenue stabilization mechanism, which provides for pass-through of actual purchased power cost, also mitigates earnings variability due to fluctuations in customer demand. Newfoundland Power has a deferral account which protects against revenue variability due to weather and has a pension expense deferral account which captures differences between forecast and actual pension expense. Relative to the universe of Canadian utilities, MECL has less regulatory protection through the operation of deferral and variance accounts.

While MECL has only the single deferral account, the balance in the account, as noted by Standard & Poor's (S&P), the debt rating agency that rates MECL and its debt issues, in its March 2009 credit rating for the Company, had reached 35% of 2008 revenues. In its discussion of regulation, S&P characterized MECL's regulatory environment as "supportive" but noted its concern with the ECAM, in particular the relative size of the deferral balance, which had risen well beyond their expectations.⁵ The 2010 and 2011 end of year balances are expected to account for a similar proportion of the corresponding years' revenues. Compared to other Canadian utilities which have mechanisms to pass

⁴ In Alberta, the electricity distribution utilities no longer purchase electricity. Both FortisAlberta and ATCO Electric have divested their retail electricity operations. In Ontario, the electricity distributors no longer have an obligation to ensure an adequate supply of electricity and do not enter into power purchase agreements. In contrast, MECL has a mandate to supply the most reliable energy at the lowest possible cost while maintaining a high level of customer service. In neither province do the electricity distributors own and operate any generation assets.

⁵ Standard & Poor's, *Maritime Electric Co. Ltd.*, March 23, 2009.

through differences between actual and forecast energy costs, MECL's balances are much higher relative to total revenues. For example, for 2010, based on the company's forecast, the total of Newfoundland Power's deferred replacement energy costs, weather normalization reserve and reserve for purchased power unit costs would be 0.4% of 2010 revenues. During 2009, Nova Scotia Power's net liability to customers (amounts to be refunded through its Fuel Adjustment Mechanism) was 0.6% of 2009 revenues. For Terasen Gas, for which gas costs account for close to 65% of total revenues, the total amount which was deferred for future recovery at the end of 2009 was approximately 5.0% of total revenues. From an equity investor's perspective, the relatively high deferred energy cost balances would increase the regulatory risk.

Taking account of the composite of the service area characteristics, the supply risks, regulatory framework, and the Company's small size, it is my opinion that MECL faces higher business risks than the average Canadian utility.

The conclusion that MECL faces higher business risks than the typical regulated Canadian utility is shared by S&P. The average business risk profile ranking⁶ assigned to Canadian utilities by Standard & Poor's is "Excellent", the top category on the ranking scale; MECL is assigned a business ranking of "Satisfactory", two rating categories lower (see Schedule 1). Only one other company designated by S&P as a Canadian gas and electric utility whose operations are primarily regulated is assigned a business risk ranking of "Satisfactory".⁷

MECL is forecasting common equity ratios in 2010 and 2011 of 41.8% and 41.0% respectively. The forecast common equity ratios are just slightly above the minimum 40% common equity ratio prescribed by Section 12.1 of the Electric Power Act and toward the lower end of the Company's 40% to 45% target range. The forecast common equity ratios are within the range of common equity ratios that have been accepted by the

⁶ There are six S&P business risk profile rankings, ranging from "Excellent" to "Vulnerable".

⁷ Of the other two investor-owned Atlantic Canada electric utilities, Newfoundland Power is not rated by S&P; Nova Scotia Power is ranked "Strong", having been upgraded by S&P from "Satisfactory" in December 2009 following implementation of a fuel adjustment mechanism.

Commission for rate setting purposes since 2004 and within the range of common equity ratios that MECL has maintained since 2004.

The 41.8% and 41.0% ratios represent the percentage of investor-supplied capital (short-term debt, long-term debt and common equity) that is provided by common equity. MECL's investor-supplied capital finances the totality of its utility assets, which include not only property, plant and equipment, but also utility-related assets such as inventory, prepaid expenses, and deferred power costs. With specific respect to the deferred power costs, they represent costs which MECL has incurred but have not yet been recovered from customers. Until such time as they are recovered, they must be financed. The related financing costs are properly recoverable from customers. Similar to all categories of utility assets, the deferred power costs are not financed by any specific financing instrument, but by the entire capital structure. In other words, specific dollars of financing cannot be traced to a specific asset.⁸ MECL is entitled to the opportunity to earn a fair and reasonable return on the capital that has been raised to finance its utility operations, which include the financing of the ECAM balances. The disallowance of the costs of financing the ECAM balances would deprive MECL of the opportunity to earn a fair and reasonable return. The potential implications of such an eventuality are substantial, including a downgrade in the credit rating and an increase in both the costs of debt and equity, which would be borne by ratepayers.

Compared to other electric utilities with rated debt, MECL's forecast actual common equity ratio is within the range of the actual common equity ratios maintained by other electric utilities in Canada and within the range of common equity ratios adopted for regulatory purposes.⁹ Both are relevant for purposes of assessing the reasonableness of MECL's forecast equity ratio. The actual equity ratios are a factor in the determination

⁸ It is perhaps obvious that, even if one were to notionally assign, for example, all of the forecast outstanding short-term debt to the deferred power costs, the total amount of common equity underpinning the utility assets in total on which the Company should be provided the opportunity to earn a fair return would not change.

⁹ In Canada, it is common for regulators to use a hypothetical or deemed common equity ratio for purposes of setting rates. For example, FortisBC and the Ontario electricity distributors are regulated using deemed common equity ratios of 40%; their actual (GAAP financial statement) equity ratios may be different from the deemed equity ratio used for ratesetting purposes.

of the companies' debt ratings. The regulated common equity ratios are a reflection of the regulators' views on the relative business risks of the utilities under their jurisdiction. The median actual common equity ratio of all Canadian electric utilities with rated debt (excluding MECL) is approximately 45%; the median of Canadian investor-owned electric utilities only is approximately 42% (see Schedule 3).

While MECL's actual and forecast common equity ratios are in the range of actual and regulated common ratios of other Canadian electric utilities, its Standard & Poor's credit rating is lower than average. MECL's corporate credit rating is BBB+, compared to the median corporate credit rating of A- for both other electric utilities and the universe of Canadian utilities (see Schedule 1).¹⁰

MECL's lower than average corporate credit rating is consistent with S&P's relative business risk assessment combined with credit metrics that have been somewhat lower than average. A comparison of MECL's key quantitative credit metrics with those of its Canadian peers shows that, even with capital structure ratios that have been reasonably comparable to its peers and allowed returns on equity in the range of 9.75% to 10.25%, MECL's 2006-2008 credit metrics were generally weaker than its Canadian peers. As set out in Schedule 4, MECL has achieved lower than average Earnings before Interest and Taxes (EBIT) Interest Coverage, Earnings before Interest, Taxes, Depreciation and Amortization (EBITDA) Interest Coverage, Funds from Operations (FFO) to Total Debt and FFO Interest Coverage than its Canadian peers. In the absence of stronger credit metrics (lower financial risk) to offset the higher business risk assessment, MECL is accorded a lower debt rating than the average Canadian utility rated by S&P.

In terms of total risk (business risk and financial risk), MECL is a higher risk utility than the typical Canadian utility. MECL's higher total risk translates into a higher overall cost of capital, which in turn, indicates that its allowed return should be higher than the average allowed return of its Canadian peers.

¹⁰ MECL's debt rating of A relates specifically to its first mortgage bonds. S&P typically accords a higher rating to secured debt issues, e.g., first mortgage bonds, than to unsecured debt issues. The preponderance of Canadian utility debt rated by S&P is unsecured.

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361 **V. ALLOWED RETURNS OF NORTH AMERICAN UTILITIES**

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363 One way to assess the reasonableness of MECL's proposed ROE and capital structure are
364 the returns recently adopted for other regulated utilities in Canada.¹¹ Prior to 2009, the
365 preponderance of allowed ROEs in Canada were set using automatic adjustment
366 formulas, which adjusted the allowed ROEs annually by 75% or 80% of the change in
367 long-term Government of Canada bonds. Over the past several years, these formulas
368 were increasingly criticized for (a) relying too heavily on a single variable, the
369 Government of Canada bond yield; (b) overestimating the sensitivity of the utility ROE
370 to changes in the Government of Canada bond yield,¹² and (c) failing to give any weight
371 to the comparable investment requirement of the fair return standard. For example, in
372 *Pipelines/Gas & Electric Utilities*, dated December 7, 2006, Karen Taylor, then equity
373 analyst for BMO Capital Markets, concluded,

374

375 We believe on a collective basis, that the allowed returns as established by the
376 formulas highlighted above [referring to the NEB,¹³ EUB, BCUC and OEB
377 formulas] are confiscatory and likely violate the Fair Return Standard.

378

379 At the time, the allowed returns for Canadian utilities whose returns were being set using
380 the automatic adjustment formulas were averaging approximately 8.5%.

381

382 During 2008 and 2009, the validity of the automatic adjustment formulas and whether
383 they were producing returns that met the requirements of the fair return standard was
384 investigated in various regulatory jurisdictions across Canada.

385

¹¹ Schedule 2 details the most recent allowed ROEs and capital structures of Canadian utilities.

¹² Quantitative evidence filed in recent cost of capital proceedings in Canada reviewing the automatic adjustment formulas indicated that, with hindsight, the utility ROE varies by closer to 50% of the change in long-term Canada bond yields than the 75% or 80% implied by the automatic adjustment formulas.

¹³ National Energy Board; Alberta Energy and Utilities Board, now the Alberta Utilities Commission; British Columbia Utilities Commission; and the Ontario Energy Board.

On March 19, 2009 the National Energy Board (NEB) released its cost of capital decision for TransQuébec and Maritimes Pipeline (TQM). In that decision, the NEB expressed the view that:

there have been significant changes since 1994 in the financial markets as well as in general economic conditions. More specifically, Canadian financial markets have experienced greater globalization, the decline in the ratio of government debt to GDP has put downward pressure on Government of Canada bond yields, and the Canada/US exchange rate has appreciated and subsequently fallen. In the Board's view, one of the most significant changes since 1994 is the increased globalization of financial markets which translates into a higher level of competition for capital. When taken together, the Board is of the view that these changes cast doubt on some of the fundamentals underlying the RH-2-94 Formula as it relates to TQM.

The NEB also noted that

The RH-2-94 Formula relies on a single variable which is the long Canada bond yield. In the Board's view, changes that could potentially affect TQM's cost of capital may not be captured by the long Canada bond yields and hence, may not be accounted for by the results of the RH-2-94 Formula. Further, the changes discussed above regarding the new business environment are examples of changes that, since 1994, may not have been captured by the RH-2-94 Formula. Over time, these omissions have the potential to grow and raise further doubt as to the applicability of the RH-2-94 Formula result for TQM for 2007 and 2008.

In its decision, which approved an overall cost of capital rather than a separate ROE and capital structure, the NEB noted that its approved cost of capital equated to a 9.7% ROE at the company's proposed capital structure containing 40% equity and an 11.2% ROE at the intervenors' recommended 32% common equity ratio. To put this in perspective, the corresponding 2007 and 2008 ROEs as determined using the NEB's multi-pipeline formula were 8.46% and 8.71% respectively. At the indicated combination of a 9.7% ROE and 40% common equity ratio, the allowed overall return for TQM is reasonably comparable to that proposed by MECL.

Subsequent to the TQM decision, BMO Capital Markets analyst George Lazarevski in *Pipelines and Utilities* (March 23, 2009) stated,

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424 We applaud the NEB for acknowledging that the RH-2-94 formula is no longer
425 applicable given the changes in business risk, financial markets and economic
426 conditions. In particular, the globalization of financial markets made it difficult
427 for Canadian operators to compete for capital with such low ROE.
428

429 In October 2009, the NEB rescinded the multi-pipeline return on equity formula, stating
430 that there was a doubt as to the ongoing correctness of the RH-2-94 Decision which
431 implemented the formula in 1995.

432

433 In addition to the NEB, during 2009, the Alberta Utilities Commission (AUC), the British
434 Columbia Utilities Commission (BCUC), the Newfoundland and Labrador Board of
435 Commissioners of Public Utilities (NL PUB), the Ontario Energy Board (OEB), and the
436 Régie de l'énergie du Québec (Régie) all reviewed their respective automatic adjustment
437 formulas. While each of the decisions came to somewhat different conclusions regarding
438 the appropriate level of ROE, the tests to be accorded most weight and the validity of the
439 formula, all of the decisions increased the allowed ROEs for 2010 above the level that the
440 formulas would have produced.

441

442 In November 2009, the AUC adopted an allowed ROE for 2009 and 2010 of 9.0% for all
443 the utilities under its jurisdiction.¹⁴ The 9.0% ROE allowed for both years compares to
444 ROEs of 8.61% for 2009 and 8.57% for 2010 that the automatic adjustment formula
445 previously adopted in 2004 would have produced. Further the AUC increased the
446 allowed common equity ratios for all of the utilities participating in the 2009 generic cost
447 of capital proceeding. The allowed common equity ratio for the taxable electric
448 distribution utilities was increased from 37% to 39%. While MECL's proposed 9.75%
449 ROE on forecast equity ratios of 41.8% and 41% is higher (in terms of overall return)
450 compared to an ROE of 9.0% on a common equity ratio of 39%, MECL faces higher
451 business risk and thus a higher cost of capital than an Alberta electricity distributor,
452 which has no retail operations, whose obligation to supply power is limited to the role of

¹⁴ Alberta Utilities Commission, *2009 Generic Cost of Capital*, Decision 2009-216, November 12, 2009. A 9.0% ROE was also adopted on an interim basis for 2011. A proceeding will be held in 2011 to finalize the 2011 allowed ROE.

default supplier (supplier of last resort), and which operates no generation facilities. MECL would be closer in business risk to the small gas utility, AltaGas Utilities, for which the AUC approved a higher overall return (9% ROE on a common equity ratio of 43%) than for the Alberta electricity distributors.

In December 2009, the Régie adopted a 2010 ROE for Gaz Métro of 9.2% on a common equity ratio of 38.5%, compared to an ROE of 8.64% which would otherwise have been adopted under the Régie's automatic adjustment formula.¹⁵ Gaz Métro is a lower risk utility than MECL.¹⁶

Also in December 2009, the BCUC reset its benchmark utility ROE at 9.5% effective July 1, 2009 and eliminated its automatic adjustment formula.¹⁷ In its decision, the BCUC stated:

The Commission Panel agrees that a single variable is unlikely to capture the many causes of changes in ROE and that in particular the recent flight to quality has driven down the yield on long-term Canada bonds, while the cost of risk has been priced upwards.

In the Commission Panel's opinion, reliance on CAPM by Canadian regulatory agencies has also contributed to the divergence between Canadian and US allowed ROEs. In light of the limited weight given by the Commission Panel to CAPM in determining the ROE for TGI [Terasen Gas] for 2010, it would seem inconsistent to retain the adjustment mechanism.

¹⁵ Régie de l'énergie du Québec, *Décision: Demande de modifier les tarifs de Société en commandite Gaz Métro en compter du 1^{er} octobre 2009*, D-2009-156, December 7, 2009. The allowed ROE included an adjustment of 0.25% to 0.55% to account for the effects of the financial crisis. The automatic adjustment formula, adopted for Gaz Métro in 1999 and amended in 2007, changes the annual ROEs by 75% of the change in forecast long-term Canada bond yields. The Régie renewed its automatic adjustment mechanism effective for Gaz Métro's 2011 test year; the 2011 ROE will be equal to 9.2% plus/minus 75% of the change in forecast long-term Canada bond yields between the December 2009 decision and August 2010. The 2011 allowed ROE is likely to be higher than 9.2% given the expected upward trend in long-term Canada bond yields.

¹⁶ Gaz Métro, for example, has a corporate credit rating of A- by Standard & Poor's compared to MECL's rating of BBB+. Gaz Métro's business risk is ranked "Excellent" on S&P's six category business risk matrix, which ranges from "Excellent" to "Vulnerable". MECL is ranked two categories lower, at "Satisfactory." (Standard & Poor's, *Issuer Ranking: Canadian Gas and Electric Utility Companies, Strongest to Weakest*, February 12, 2010).

¹⁷ British Columbia Utilities Commission, *In the Matter of Terasen Gas Inc., Terasen Gas (Vancouver Island) Inc., Terasen Gas (Whistler) Inc. and Return on Equity and Capital Structure, Decision*, December 16, 2009.

477

478 The reset of the benchmark ROE represents an increase of slightly more than one
479 percentage point relative to the ROE produced by the BCUC's automatic adjustment
480 formula. Terasen Gas Inc. was, as previously, designated the benchmark utility. The
481 BCUC also raised the allowed deemed common equity ratio of Terasen Gas from 35% to
482 40%. With the reset of the benchmark utility ROE, the corresponding ROE for the only
483 investor-owned electric utility in the province, FortisBC, rated Baa2 by Moody's and
484 BBB (high) by DBRS, is currently 9.9% on a deemed common equity ratio of 40%.¹⁸
485 The two smaller Terasen gas utilities, Terasen Gas (Whistler) and Terasen Gas
486 (Vancouver Island) are both allowed ROEs of 10.0% on deemed equity ratios that are
487 currently 40%.¹⁹ Of the two smaller gas utilities, only Terasen Gas (Vancouver Island)
488 has credit ratings; its debt is rated A3 by Moody's and BBB(high) by DBRS. MECL's
489 proposed ROE of 9.75% on common equity ratios of 41.8% and 41% in 2010 and 2011,
490 respectively, results in returns comparable to those adopted for FortisBC and the two
491 smaller BC gas distribution utilities. MECL is of reasonably comparable risk to the three
492 BC utilities.

493

494 Following a consultative process, the OEB reset its benchmark ROE in December 2009 at
495 9.75%, representing an increase of more than 1.25 percentage points relative to the
496 previous formula approach.²⁰ The Board retained its previously approved deemed
497 common equity ratio of 40% for all the Ontario electricity distributors under its
498 jurisdiction. The OEB also revised its automatic adjustment formula. Previously the
499 formula, similar to those in other Canadian jurisdictions, changed the allowed ROE by
500 75% of the change in forecast long-term Canada bond yield spreads. The revised formula
501 changes the allowed ROE by 50% of the change in forecast long-term Canada bond
502 yields and 50% of the change in observed A rated utility bond spreads. The initial reset

¹⁸ FortisBC is allowed an equity risk premium of 0.40% above that of the benchmark utility.

¹⁹ Both gas utilities are allowed risk premiums of 0.50% above that of the benchmark utility. In its December 2009 decision, in which it raised the common equity ratio of Terasen Gas to 40%, the BCUC ordered the two smaller gas utilities to file in their next revenue requirements application for the equity ratio that they believed reflected their long-term business risks.

²⁰ Ontario Energy Board, *Report of the Board on the Cost of Capital for Ontario's Regulated Utilities*, EB-2009-0084, December 11, 2009.

503 benchmark ROE of 9.75% was based on a forecast long-term Canada bond yield of
504 4.25% and a utility/government bond yield spread of 1.415%.²¹

505
506 The formula was updated for application to all electricity distributors with rebased rates
507 to become effective May 1, 2010.²² The allowed ROE will be 9.85%, reflecting a
508 forecast long-term Canada bond yield of 4.46% and a utility/government bond yield
509 spread of 1.40%. Similar to Alberta, the electricity distributors in Ontario are inherently
510 of lower business risk than MECL (Ontario's distributors have no obligation to acquire
511 power supply and no generation assets). All of the electricity distribution utilities in
512 Ontario that are rated by S&P have "Excellent" business risk profile rankings and all are
513 rated A- or better. At a proposed ROE of 9.75% and common equity ratios of 41.8% and
514 41% in the test years, MECL's proposed return is comparable to the overall return of
515 9.85% ROE on 40% common equity recently adopted for the less risky Ontario electricity
516 distributors.

517
518 In 2009, the NL PUB reviewed the cost of capital for Newfoundland Power, setting the
519 allowed ROE for 2010 at 9.0% on a forecast common equity ratio of 44.7%.²³
520 Newfoundland Power, which is a lower business risk utility than MECL, is allowed an
521 overall return virtually identical to that requested by MECL as a result of Newfoundland
522 Power's thicker allowed common equity ratio.²⁴

²¹ Had the Commission adopted a similar formula for MECL in its Order UE06-03 (June 2006), which found an ROE of 10.25% to be just and reasonable, the allowed ROEs for 2010 and 2011 would be higher than the 9.75% ROE that MECL is proposing for both years. The forecast long-term Canada bond yield for 2010 is slightly lower than at the time of MECL's application for 2006 rates but virtually identical for 2011; the spread between A rated utility and long-term government bond yields are currently higher than they were at the time of MECL's 2006 rates application.

²² Ontario Energy Board, *Cost of Capital Updates for 2010 Cost of Service Applications*, February 24, 2010.

²³ Newfoundland and Labrador Board of Commissioners of Public Utilities, Reasons for Decision, *Order No. P.U. 43(2009)*, December 24, 2009. The NL PUB determined that it would apply a formula for 2011 and gave Newfoundland Power the opportunity to recommend changes to the previously adopted formula, which changed the allowed ROE by 80% of the change in observed long-term Canada bond yields.

²⁴ In Order UE06-03, dated June 2006, the Commission concluded "The Commission has reviewed the Company's submissions on this matter and agrees that the Company operates with a higher degree of business risk than other investor owned utilities in Atlantic Canada. This is due, in part, to the relative small size of the Company. In our view, this risk is, however, mitigated somewhat through the operation of the Energy Cost Adjustment Mechanism..." Between 2004 (when MECL returned to rate base/rate of return regulation as a result of an amendment to the Electric Power Act) and 2009, the ROEs adopted for MECL have been, on average, one percentage point higher than those adopted for Newfoundland Power.

The allowed returns for U.S. utilities are also a relevant benchmark for assessing the reasonableness of MECL's proposed ROE and deemed common equity ratio. As a February 23, 2009 report prepared by Macquarie Research (prior to any of the above referenced decisions) entitled *ROE Formula May Finally Bite the Dust* concluded:

Lack of comparability between allowed utility ROEs and returns on similar investments is driving the emerging capital access problem. In support of the argument the comparability criterion is not being met, utility customers and their expert witnesses like to point out that allowed returns for U.S. utilities are considerably higher than allowed returns in Canada. No matter how we slice the data, we concur with this opinion.

The ROEs allowed for U.S. electric utilities from the beginning of 2009 to the end of March 2010 averaged 10.5% on an average common equity ratio of 48.6% (54 cases). The corresponding average ROE adopted for U.S. gas distribution utilities was 10.2% on a common equity ratio of 49.1% (38 cases). MECL's proposed ROE of 9.75% on common equity ratios of 41.8% and 41% in 2010 and 2011 respectively results in an allowed overall return well below those recently adopted for U.S. utilities.

In order to be competitive in the capital markets, a regulated utility's financial parameters – which encompass both capital structure and ROE – need to be comparable to those of its peers. In this regard, it is important to recognize that MECL competes for capital with other Canadian regulated companies, with regulated companies globally, as well as with unregulated companies, both within Canada and globally.

In its 2009 *World Energy Outlook*, the International Energy Agency estimated that between 2008 and 2030 close to \$3.8 trillion in investment would be required for the electricity (\$2.4 trillion) and gas distribution and transmission industries (\$1.4 trillion) in

In isolation (independent of the capital structure), MECL's proposed ROE for 2010 is only 0.75% higher than the ROE adopted for Newfoundland Power for 2010. Compared to both Newfoundland Power and Nova Scotia Power, the returns on equity allowed by the Commission for MECL between 2004 and 2009 have been approximately 0.80% higher than the ROEs adopted, on average, for the two other Atlantic Canada investor-owned electric utilities. MECL's proposed ROE of 9.75% reflects a risk premium of less than 0.60% above the average of the most recently adopted ROEs of Newfoundland Power (9.0%) and Nova Scotia Power (9.35%).

North America. To compete successfully for required capital, MECL requires returns that are competitive with those of its peers. The achievement of comparability requires explicit recognition of the financial parameters of the companies of comparable risk to MECL, including other regulated companies throughout North America.

The table below summarizes the returns (ROE and capital structure) adopted since the beginning of 2009 for Canadian and U.S. utilities compared to the returns that MECL is proposing.

Table 3

	Allowed ROE	Common Equity Ratio
Maritime Electric (proposed)	9.75%	41.4%
Canadian Utilities		
Alberta Electricity Distributors	9.00%	39.0%
AltaGas Utilities	9.00%	43.0%
FortisBC	9.90%	40.0%
Gaz Métro	9.20%	38.5%
Newfoundland Power	9.00%	44.7%
Ontario Electricity Distributors	9.85%	40.0%
Terasen Gas	9.50%	40.0%
Terasen Gas (VI)	10.00%	40.0%
Terasen Gas (Whistler)	10.00%	40.0%
TQM Pipeline	9.70%	40.0%
Average	9.52%	40.5%
U.S. Utilities		
Electric Utilities	10.46%	48.6%
Gas Distribution Utilities	10.20%	49.1%

As indicated in Table 3 above, MECL's proposed ROE of 9.75% on 2010 and 2011 common equity ratios averaging 41.4% compares to an average return adopted for Canadian utilities during 2009-2010 comprised of an ROE of approximately 9.5% on a common equity ratio of approximately 40.5%.

MECL faces higher business risk than the typical Canadian utility but has a similar capital structure. The slightly higher overall return, comprised of both capital structure and ROE, proposed by MECL relative to the average overall return adopted for its Canadian peers is warranted to compensate for MECL's higher than average business risk. In addition, even if one were to allow for somewhat higher business risk on the part of U.S. utilities in the aggregate relative to MECL, MECL's proposed ROE of 9.75% on an average equity ratio of 41.4% falls materially short of the returns allowed for U.S. electric and gas utilities.

VI. RETURNS OF MECL'S U.S. ELECTRIC UTILITY PEERS

As the purpose of this report was to test the reasonableness of the proposed ROE and capital structure, I did not estimate a fair return for MECL from "first principles" by conducting all of the traditional tests used to establish a fair and reasonable return (Discounted Cash Flow, Equity Risk Premium, Capital Asset Pricing Model, Comparable Earnings). However, I have considered the returns of a sample of U.S. electric utilities selected to face a comparable level of business risk to MECL, including an estimate of their cost of attracting equity capital using the Discounted Cash Flow (DCF) test.

Reliance on U.S. utilities rather than Canadian utilities is required because the only relatively pure-play publicly-traded integrated electric utility in Canada is Emera Inc.²⁵ The regulatory framework and cost of capital environments in the two countries are sufficiently similar to warrant reliance on a sample of U.S. utilities as a proxy for MECL.²⁶

²⁵ In Canada, there are only seven publicly-traded Canadian utilities, six with conventional corporate structures (Canadian Utilities, Emera, Enbridge, Fortis, Pacific Northern Gas and TransCanada Corporation), and Gaz Métro, which trades as a limited partnership. These companies are relatively heterogeneous in terms of both operations and size. The relatively small and heterogeneous universe of publicly-traded Canadian utilities means that it is impossible to select a sample of companies that would be considered directly comparable in total risk to any specific Canadian utility.

²⁶ I did not estimate the cost of equity specifically by reference to Emera Inc., as any cost of equity estimate which relies only on data for a single company is subject to measurement error, and entails considerable circularity.

To ensure that the electric utilities are of comparable risk to MECL, the following selection criteria were applied:

1. The companies are designated as regulated or mostly regulated by the Edison Electric Institute (EEI)²⁷;
2. The credit ratings of the traded firms are mid BBB or higher by both Standard & Poor's and Moody's, the two major U.S. credit rating agencies.
3. A consistent series of I/B/E/S²⁸ estimates is available;
4. The companies paid a dividend in 2009.
5. The selection was limited to companies with no more than 50% of their assets in regulated generation and less than 10% of their assets in unregulated generation;

Application of the selection criteria resulted in a sample of 17 companies. The individual companies, along with company-specific data, are listed on Schedule 5. Table 4 below provides summary information for the sample and for MECL.

²⁷ EEI categorizes electric utilities with more than 50% of their assets in regulated operations as either "mostly regulated" (50-80%) or "regulated" (80%+).

²⁸ I/B/E/S International compiles data from forecasts made by investment analysts for thousands of publicly traded companies. In addition to the consensus earnings growth forecast, earnings estimates are available for each company along with the high, low, and average estimates for each.

614

615

Table 4

	MECL	Sample of 17 U.S. Electric Utilities (Medians)
Standard & Poor's:		
Business Risk Profile	Satisfactory	Excellent
Financial Risk Profile	Intermediate	Significant
EBIT Coverage (2006-2008)	2.4X	2.7X
FFO/Debt (2006-2008)	14.9%	18.8%
FFO Interest Coverage (2006-2008)	2.9X	3.9X
Debt/Total Capital (2006-2008)	60.6%	56.3%
Corporate Credit Rating	BBB+	BBB+
Moody's Debt Rating	na	Baa1
Common Equity Ratio (2006-2008)	40.4%	43.7%
Actual Return on Equity (2006-2008)	10.1%	11.1%
Allowed Return on Equity	9.75%	10.5%
Allowed Common Equity Ratio	40.5%	49.5%
Value Line Forecast Return on Average Common Equity (2010-2014/15)	na	10.1%

616 Note: 1) Funds from Operations (FFO) is defined by S&P as income from continuing operations plus
617 depreciation, amortization, deferred income taxes and investment tax credits less AFUDC and
618 other FFO adjustments.
619 2) S&P adjusts debt and equity from book values for operating leases, post-retirement benefits,
620 debt-like hybrids.
621 3) Common equity ratio (2006-2008) is based on book values of short-term and long-term debt,
622 preferred shares and common equity, i.e., total capital.
623

624 Source: Schedule 5.
625

626 The comparisons in the table above indicate that MECL remains of higher business risk
627 than the selected utilities. As noted above, S&P assigned MECL a business risk ranking
628 of “Satisfactory”. The median business risk ranking of the proxy sample companies is
629 “Excellent” on S&P’s business risk ranking scale, that is, the top category and two
630 categories higher than the “Satisfactory” ranking assigned to MECL. With respect to
631 financial risk, S&P has assigned MECL an “Intermediate” financial risk ranking and the
632 proxy utility sample a ranking of “Satisfactory”, one category higher. However, MECL’s
633 financial indicators have been weaker than those of the proxy sample:
634

1. MECL's actual 2006-2008 average common equity ratio of 40.4% was lower than the corresponding proxy sample equity ratio of approximately 44%.²⁹

2. Other key credit metrics have been generally weaker for MECL than for its U.S. peers. For example, the median three-year average (2006-2008) Earnings Before Income Taxes (EBIT) interest coverage ratios of MECL were weaker than those of the sample (2.4X versus 2.7X). Similarly, the proxy electric utility sample's median Funds From Operations (FFO) to Debt ratio of 18.8% and FFO interest coverage ratio of 3.9X were higher than MECL's 14.9% and 2.9X.

In light of these considerations, the returns for these utilities should be viewed as conservative as a measure of the reasonableness of MECL's proposed allowed ROE of 9.75% on the forecast common equity ratios of 41.8% and 41.0%. MECL's proposed ROE of 9.75% is approximately 1.25-1.50 percentage points lower than the actual returns on average equity these utilities have achieved over the past three years (sample average and median of 11.3% and 11.1% respectively) and approximately 0.25 to 1.0 percentage points below the returns on average equity that *Value Line*³⁰ forecasts the utilities will earn going forward (sample average and median of 10.7% and 10.1% respectively) on higher common equity ratios than MECL's (Schedule 5, page 1).³¹

Based on allowed returns that were adopted for the proxy companies between 2007 and the end of first quarter 2010 only, the median ROE adopted for utilities in the proxy sample has been 10.5%, applied to a regulated common equity ratio of close to 50% (Schedule 5, page 2).

²⁹ Calculated using reported total debt, preferred shares and common equity. The S&P debt ratio calculations, as indicated in the Notes to Table 4, incorporate adjustments to the balance sheet values for operating leases, postretirement benefits and debt-like hybrids. When the S&P-adjusted debt ratios of MECL are compared to similarly calculated ratios for the sample, MECL's 2006-2008 debt ratio of 60.6% (equity ratio of 39.4%) is over six percentage points higher (lower) than the median 56.3% debt ratio (equity ratio of 43.7%) of its U.S. electric utility peers.

³⁰ *Value Line* is an independent research organization which provides widely used financial information and forecasts.

³¹ Over the three year period 2006-2008, the proxy utilities maintained, on average a common equity ratio based on total capital of approximately 44%. Based on permanent capital only (long-term debt, preferred shares and common equity), *Value Line* projects that the common equity ratios of the proxy sample will average approximately 49% from 2010-2014/15.

The earned, expected, and allowed returns of MECL's U.S. electric utility peers all demonstrate that an allowed ROE of 9.75% on common equity ratios of 41.8% and 41% is lower than the returns available to utilities of reasonably comparable total risk to MECL.

To provide a further perspective on MECL's proposed ROE of 9.75% on equity ratios of 41.8% and 41%, I performed a DCF analysis for the proxy sample of U.S. electric utilities using both a constant growth and a three-stage model.

The discounted cash flow approach proceeds from the proposition that the price of a common stock is the present value of the future expected cash flows to the investor, discounted at a rate that reflects the risk of those cash flows. If the price of the security is known (can be observed), and if the expected stream of cash flows can be estimated, it is possible to approximate the investor's required return (or capitalization rate) as the rate that equates the price of the stock to the discounted value of future cash flows.

The constant growth DCF model rests on the assumption that investors expect cash flows to grow at a constant rate throughout the life of the stock. The assumption that investors expect a stock to grow at a constant rate over the long-term is most applicable to stocks in mature industries, e.g. utilities.

The constant growth DCF model is expressed as follows:

$$\text{Cost of Equity (k)} = \frac{D_1 + g}{P_0}$$

where,

D_1 = next expected dividend³²

P_0 = current price

g = constant growth rate

³²Alternatively expressed as $D_0 (1 + g)$, where D_0 is the most recently paid dividend.

The constant growth DCF model was applied to the sample of U.S. electric utilities using the following inputs to calculate the dividend yield:

1. the most recent annualized dividend paid as of March 15, 2010 as D_0 ; and,
2. the average of the daily close prices for the period February 16 to March 15, 2010 as P_0 .

The February 2010 I/B/E/S consensus (mean) earnings growth forecasts were used to estimate “g” in the growth component for each utility and to adjust the current dividend yield to the expected dividend yield. The average and median constant growth DCF estimates of the cost of equity for the electric utility sample were 11.1% and 10.7% respectively (Schedule 6).

The three-stage model is based on the premise that investors expect the growth rate for the utilities to be equal to the analysts’ forecasts of earnings growth for the individual companies in the near-term (Stage 1), to migrate to the expected long-run nominal rate of growth in the economy (GDP Growth) (Stage 2) and to equal expected long-term nominal GDP growth in the long term (Stage 3).

Using the three-stage DCF model, the DCF cost of equity is estimated as the internal rate of return that causes the price of the stock to equal the present value of all future cash flows to the investor where the cash flows are defined as follows:

The cash flow per share in Year 1 is equal to:

Last Paid Annualized Dividend x (1 + Stage 1 Growth)

For Years 2 through 5, cash flow is defined as:

Cash Flow_{t-1} x (1 + Stage 1 Growth)

720 For Years 6 through 10, cash flow is defined as:

721 **Cash Flow** $t-1 \times (1 + \text{Stage 2 Growth})$

722

723 Cash flows from Year 11 onward are estimated as:

724 **Cash Flow** $t-1 \times (1 + \text{GDP Growth})$

725

726 The use of forecast long-term growth in the economy as the proxy for long-term growth
727 in the DCF model recognizes that, while all industries go through various stages in their
728 life cycle, mature industries are those whose growth parallels that of the overall economy.
729 Utilities are considered to be the quintessential mature industry.

730

731 The long-run (2012-2021) expected nominal rate of growth in GDP is 5.0% based on the
732 consensus of economists' forecasts (published twice annually) found in Blue Chip
733 *Economic Indicators*, March 10, 2010. The average and median three-stage DCF model
734 estimates of the cost of equity for the U.S. electric utility sample (Schedule 7) were
735 10.4% and 10.2%, respectively.

736

737 The results of the two DCF models indicate an estimated cost of equity in the range of
738 approximately 10.25% (Three-stage model) to 10.75% (Constant Growth model). A cost
739 of equity in the range of 10.25% to 10.75% is approximately 0.50 to 1.0 percentage
740 points higher than the 9.75% ROE proposed by MECL. Moreover, the higher estimated
741 proxy sample DCF costs of equity relate to an actual book value common equity ratio
742 that is slightly higher than MECL's forecast common equity ratios (Schedule 5 Page 1).
743 The estimated DCF costs of equity for the proxy sample represent a conservative estimate
744 of the cost of equity for MECL, as they have not been adjusted upward to take account of
745 MECL's lower common equity ratio.³³

746

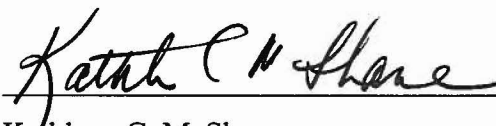
747 In summary, the MECL's proposed 9.75% ROE on common equity ratios of 41.8% and
748 41% in 2010 and 2011, respectively, is significantly lower than returns available to the

³³ The cost of equity, in principle, relates to market value capital structures. The market value equity ratio of the proxy utility sample coincident with the DCF cost of equity estimates was approximately 52% (Schedule 8).

Company's U.S. electric utility peers. MECL's proposed 9.75% ROE on common equity ratios of 41.8% and 41% in 2010 and 2011 is lower than:

1. The 11.1%-11.3% ROE on an approximately 44% common equity ratio (based on total capital) which has been earned by the proxy electric utilities.
2. The ROEs forecast to be earned by the proxy utilities of 10.1%-10.7% on a permanent capital common equity ratio of approximately 49%.
3. The most recent allowed returns for the regulated operations of the proxy utilities, comprising a 10.5% ROE on a common equity ratio of close to 50%.
4. The approximately 10.25% to 10.75% DCF cost of equity estimated for the proxy electric utility sample.

This concludes my written evidence in this matter.



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QUALIFICATIONS OF KATHLEEN C. McSHANE

Kathleen McShane is President and senior consultant with Foster Associates, Inc., where she has been employed since 1981. She holds an M.B.A. degree in Finance from the University of Florida, and M.A. and B.A. degrees from the University of Rhode Island. She has been a CFA charterholder since 1989.

Ms. McShane worked for the University of Florida and its Public Utility Research Center, functioning as a research and teaching assistant, before joining Foster Associates. She taught both undergraduate and graduate classes in financial management and assisted in the preparation of a financial management textbook.

At Foster Associates, Ms. McShane has worked in the areas of financial analysis, energy economics and cost allocation. Ms. McShane has presented testimony in more than 200 proceedings on rate of return and capital structure before federal, state, provincial and territorial regulatory boards, on behalf of U.S. and Canadian gas distributors and pipelines, electric utilities and telephone companies. These testimonies include the assessment of the impact of business risk factors (e.g., competition, rate design, contractual arrangements) on capital structure and equity return requirements. She has also testified on various ratemaking issues, including deferral accounts, rate stabilization mechanisms, excess earnings accounts, cash working capital, and rate base issues. Ms. McShane has provided consulting services for numerous U.S. and Canadian companies on financial and regulatory issues, including financing, dividend policy, corporate structure, cost of capital, automatic adjustments for return on equity, form of regulation (including performance-based regulation), unbundling, corporate separations, stand-alone cost of debt, regulatory climate, income tax allowance for partnerships, change in fiscal year end, treatment of inter-corporate financial transactions, and the impact of weather normalization on risk.

Ms. McShane was principal author of a study on the applicability of alternative incentive regulation proposals to Canadian gas pipelines. She was instrumental in the design and preparation of a study of the profitability of 25 major U.S. gas pipelines, in which she developed estimates of rate base, capital structure, profit margins, unit costs of providing services, and various measures of return on investment. Other studies performed by Ms. McShane include a comparison of municipal and privately owned gas utilities, an analysis of the appropriate capitalization and financing for a new gas pipeline, risk/return analyses of proposed water and gas distribution companies and an independent power project, pros and cons of performance-based regulation, and a study on pricing of a competitive product for the U.S. Postal Service. She has also conducted seminars on cost of capital and related regulatory issues for public utilities, with focus on the Canadian regulatory arena.

PUBLICATIONS, PAPERS AND PRESENTATIONS

- *Utility Cost of Capital: Canada vs. U.S.*, presented at the CAMPUT Conference, May 2003.
- *The Effects of Unbundling on a Utility's Risk Profile and Rate of Return*, (co-authored with Owen Edmondson, Vice President of ATCO Electric), presented at the Unbundling Rates Conference, New Orleans, Louisiana sponsored by Infocast, January 2000.
- *Atlanta Gas Light's Unbundling Proposal: More Unbundling Required?* presented at the 24th Annual Rate Symposium, Kansas City, Missouri, sponsored by several commissions and universities, April 1998.
- *Incentive Regulation: An Alternative to Assessing LDC Performance*, (co-authored with Dr. William G. Foster), presented at the Natural Gas Conference, Chicago, Illinois sponsored by the Center for Regulatory Studies, May 1993.
- *Alternative Regulatory Incentive Mechanisms*, (co-authored with Stephen F. Sherwin), prepared for the National Energy Board, Incentive Regulation Workshop, October 1992.

EXPERT TESTIMONY/OPINIONS
ON
RATE OF RETURN AND CAPITAL STRUCTURE

<u>Client</u>	<u>Date</u>
Alberta Natural Gas	1994
AltaGas Utilities	2000
Ameren (Central Illinois Public Service)	2000, 2002, 2005, 2007 (2 cases), 2009 (2 cases)
Ameren (Central Illinois Light Company)	2005, 2007 (2 cases), 2009 (2 cases)
Ameren (Illinois Power)	2004, 2005, 2007 (2 cases), 2009 (2 cases)
Ameren (Union Electric)	2000 (2 cases), 2002 (2 cases), 2003, 2006 (2 cases)
ATCO Electric	1989, 1991, 1993, 1995, 1998, 1999, 2000, 2003
ATCO Gas	2000, 2003, 2007
ATCO Pipelines	2000, 2003, 2007
ATCO Utilities	2008
Bell Canada	1987, 1993
Benchmark Utility Cost of Equity (British Columbia)	1999
Canadian Western Natural Gas	1989, 1996, 1998, 1999
Centra Gas B.C.	1992, 1995, 1996, 2002
Centra Gas Ontario	1990, 1991, 1993, 1994, 1995
Direct Energy Regulated Services	2005
Dow Pool A Joint Venture	1992
Edmonton Water/EPCOR Water Services	1994, 2000, 2006, 2008
Electricity Distributors Association	2009
Enbridge Gas Distribution	1988, 1989, 1991-1997, 2001, 2002
Enbridge Gas New Brunswick	2000
Enbridge Pipelines (Line 9)	2007, 2009
Enbridge Pipelines (Southern Lights)	2007

Foster Associates, Inc.

FortisBC	1995, 1999, 2001, 2004
Gas Company of Hawaii	2000, 2008
Gaz Métro	1988
Gazifère	1993, 1994, 1995, 1996, 1997, 1998, 2010
Generic Cost of Capital, Alberta (ATCO and AltaGas Utilities)	2003
Heritage Gas	2004, 2008
Hydro One	1999, 2001, 2006 (2 cases)
Insurance Bureau of Canada (Newfoundland)	2004
Laclede Gas Company	1998, 1999, 2001, 2002, 2005
Laclede Pipeline	2006
Mackenzie Valley Pipeline	2005
Maritimes NRG (Nova Scotia) and (New Brunswick)	1999
MidAmerican Energy Company	2009
Multi-Pipeline Cost of Capital Hearing (National Energy Board)	1994
Natural Resource Gas	1994, 1997, 2006, 2010
New Brunswick Power Distribution	2005
Newfoundland & Labrador Hydro	2001, 2003
Newfoundland Power	1998, 2002, 2007, 2009
Newfoundland Telephone	1992
Northland Utilities	2008 (2 cases)
Northwestel, Inc.	2000, 2006
Northwestern Utilities	1987, 1990
Northwest Territories Power Corp.	1990, 1992, 1993, 1995, 2001, 2006
Nova Scotia Power Inc.	2001, 2002, 2005, 2008
Ontario Power Generation	2007
Ozark Gas Transmission	2000
Pacific Northern Gas	1990, 1991, 1994, 1997, 1999, 2001, 2005, 2009
Plateau Pipe Line Ltd.	2007
Platte Pipeline Co.	2002

St. Lawrence Gas	1997, 2002
Southern Union Gas	1990, 1991, 1993
Stentor	1997
Tecumseh Gas Storage	1989, 1990
Telus Québec	2001
Terasen Gas	1992, 1994, 2005, 2009
Terasen Gas (Whistler)	2008
TransCanada PipeLines	1988, 1989, 1991 (2 cases), 1992, 1993
TransGas and SaskEnergy LDC	1995
Trans Québec & Maritimes Pipeline	1987
Union Gas	1988, 1989, 1990, 1992, 1994, 1996, 1998, 2001
Westcoast Energy	1989, 1990, 1992 (2 cases), 1993, 2005
Yukon Electrical Company	1991, 1993, 2008
Yukon Energy	1991, 1993

EXPERT TESTIMONY/OPINIONS
ON
OTHER ISSUES

<u>Client</u>	<u>Issue</u>	<u>Date</u>
Nova Scotia Power	Calculation of ROE	2009
New Brunswick Power Distribution	Interest Coverage/Capital Structure	2007
Heritage Gas	Revenue Deficiency Account	2006
Hydro Québec	Cash Working Capital	2005
Nova Scotia Power	Cash Working Capital	2005
Ontario Electricity Distributors	Stand-Alone Income Taxes	2005
Caisse Centrale de Réassurance	Collateral Damages	2004
Hydro Québec	Cost of Debt	2004
Enbridge Gas New Brunswick	AFUDC	2004
Heritage Gas	Deferral Accounts	2004
ATCO Electric	Carrying Costs on Deferral Account	2001
Newfoundland & Labrador Hydro	Rate Base, Cash Working Capital	2001
Gazifère Inc.	Cash Working Capital	2000
Maritime Electric	Rate Subsidies	2000
Enbridge Gas Distribution	Principles of Cost Allocation	1998
Enbridge Gas Distribution	Unbundling/Regulatory Compact	1998
Maritime Electric	Form of Regulation	1995
Northwest Territories Power	Rate Stabilization Fund	1995
Canadian Western Natural Gas	Cash Working Capital/ Compounding Effect	1989
Gaz Metro/ Province of Québec	Cost Allocation/ Incremental vs. Rolled-In Tolling	1984

DEBT RATINGS OF CANADIAN UTILITIES

		<u>Ratings</u>				
		<u>DBRS</u>	<u>Moody's</u>	<u>S&P</u>		
<u>Company</u>	<u>Issuer Rating</u>	<u>Debt Rating</u>	<u>Issuer Rating</u>	<u>Debt Rating</u>	<u>S&P Business Risk Profile</u>	
Maritime Electric				BBB+	A (Senior Secured)	Satisfactory
Electric Utilities						
AltaLink L.P.		A (Senior Secured)		A-	A- (Senior Secured)	Excellent
Chatham-Kent Energy Inc.				A		Excellent
CU Inc.		A(high) (Unsecured)		A	A (Senior Unsecured)	Excellent
Enersource	A					
ENMAX		A(low) (Senior Unsecured)		BBB+	BBB+ (Senior Unsecured)	Strong
EPCOR Utilities Inc		A(low) (Senior Unsecured)		BBB+	BBB+ (Senior Unsecured)	Strong
FortisAlberta Inc.		A(low) (Senior Unsecured)	Baa1 (Senior Unsecured)	A-	A- (Senior Unsecured)	Excellent
FortisBC Inc		BBB(high) (Senior Unsecured)	Baa2 (Senior Unsecured)			
Hamilton Utilities				A+	A+ (Senior Unsecured)	Excellent
Hydro One		A(high) (Senior Unsecured)	Aa3 (Senior Unsecured)	A+	A+ (Senior Unsecured)	Excellent
Hydro Ottawa Holding Inc.		A (Senior Unsecured)		A	A (Senior Unsecured)	Excellent
London Hydro				A		Excellent
Newfoundland Power		A (Senior Secured)				
Nova Scotia Power		A(low) (Unsecured)		BBB+	BBB+ (Senior Unsecured)	Strong
Toronto Hydro		A(high) (Senior Unsecured)		A	A (Senior Unsecured)	Excellent
Veridian Corp.	A					
Gas Distributors						
Enbridge Gas Distribution		A (Unsecured)		A-	A- (Senior Unsecured)	Excellent
Gaz Metropolitan		A (Senior Secured)		A-	A (Senior Secured)	Excellent
Pacific Northern Gas		BBB(low) (Senior Secured)				
Terasen Gas		A (Senior Unsecured)	A3 (Senior Unsecured)	A	A (Senior Unsecured)	Excellent
			A1 (Senior Secured)		AA- (Senior Secured)	
Union Gas Limited		A (Unsecured)		BBB+	BBB+ (Senior Unsecured)	Strong
Pipelines						
Enbridge Pipelines		A(high) (Unsecured)		A-	A- (Senior Unsecured)	Excellent
NOVA Gas Transmission		A (Unsecured)	A3 (Senior Unsecured)	A-	A- (Senior Unsecured)	Strong
Trans Quebec & Maritimes		A(low) (Senior Unsecured)		BBB+	BBB+ (Senior Unsecured)	Satisfactory
TransCanada PipeLines		A (Senior Unsecured)	A3	A-	A- (Senior Unsecured)	Strong
Westcoast Energy		A(low) (Senior Unsecured)		BBB+	BBB+ (Senior Unsecured)	Strong
Medians						
Electrics		A		A3	A-	Excellent
All Companies		A		A3	A-	Excellent

Source: DBRS Bond Ratings, www.moodys.com, Standard & Poor's.

**EQUITY RETURN AWARDS AND CAPITAL STRUCTURES ADOPTED BY
REGULATORY BOARDS FOR CANADIAN UTILITIES
(Percentages)**

	Decision Date	Regulator	Order/ File Number	Debt	Preferred Stock	Common Stock Equity	Equity Return	Forecast 30-Year Bond Yield
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Maritime Electric	2/09	IRAC	UE-09-02	59.50	0.00	40.50	9.75	n/a
Electric Utilities								
AltaLink	11/09	EUB	2009-216	64.00	0.00	36.00	9.00	n/a
ATCO Electric								
Transmission	11/09	EUB	2009-216	58.00	6.00	36.00	9.00	n/a
Distribution	11/09	EUB	2009-216	54.10	6.90	39.00	9.00	n/a
EPCOR								
Transmission	11/09	EUB	2009-216	63.00	0.00	37.00	9.00	n/a
Distribution	11/09	EUB	2009-216	59.00	0.00	41.00	9.00	n/a
FortisAlberta Inc.	11/09	EUB	2009-216	59.00	0.00	41.00	9.00	n/a
FortisBC Inc.	5/05; 12/09	BCUC	G-52-05; G-158-09	60.00	0.00	40.00	9.90	n/a
Hydro One Transmission	8/07	OEB	EB-2006-0501	60.00	0.00	40.00	8.35	4.16 ^{1/}
Newfoundland Power	12/09	NLPub	P.U.43	54.81	1.05	44.14	9.00	4.50
Nova Scotia Power	3/06; 11/08	NSUARB	2006 NSUARB 23; 2008 NSUARB 140	53.30	9.20	37.50	9.35	na
Ontario Electricity Distributors	12/09; 2/10	OEB	EB-2009-0084; Letter Cost of Capital Parameters	60.00	0.00	40.00	9.85	4.46
Ontario Power Generation	11/08	OEB	EB-2007-0905	53.00	0.00	47.00	8.65	4.75 ^{1/}
Gas Distributors								
AltaGas Utilities	11/09	EUB	2009-216	57.00	0.00	43.00	9.00	n/a
ATCO Gas	11/09	EUB	2009-216	54.10	6.90	39.00	9.00	n/a
Enbridge Gas Distribution Inc	1/04; 7/07; 2/08	OEB	RP-2002-0158; EB-2006-0034; EB-2007-0615	61.33	2.67	36.00	8.39	4.23 ^{1/}
Gaz Métropolitain	12/09	Régie	D-2009-156	54.00	7.50	38.50	9.20	4.30
Pacific Northern Gas-West	5/07; 11/08	BCUC	G-55-07; L-55-08	56.20	3.80	40.00	9.12	4.35 ^{2/}
Terasen Gas	12/09	BCUC	G-158-09	60.00	0.00	40.00	9.50	n/a
Terasen Gas (Vancouver Island)	12/09	BCUC	G-14-06; G-158-09	60.00	0.00	40.00	10.00	n/a
Terasen Gas(Whistler)	12/09	BCUC	G-35-09; G-158-09	60.00	0.00	40.00	10.00	n/a
Union Gas	1/04; 5/06; 1/08	OEB	RP-2002-0158; EB-2006-0520; EB-2007-0606	60.60	3.40	36.00	8.54	4.23 ^{1/}
Gas Pipelines								
Foothills Pipe Lines Ltd.	12/04; 12/05	NEB	RH-2-94; TG-8-2004; TG-08-2005	64.00	0.00	36.00	8.52	4.30 ^{4/}
TransCanada PipeLines	5/07; 12/09	NEB	RH-2-94; TG-06-2007; NEB Letter 12-09	60.00	0.00	40.00	8.52	4.30
Trans Quebec & Maritimes Pipeline	3/09	NEB	RH-1-2008	60.00	0.00	40.00	9.70	n/a ^{3/}
Westcoast Energy	12/06; 11/08	NEB	RH-2-94; TG-05-2006	64.00	0.00	36.00	8.57	4.36 ^{4/}

^{1/} ROEs set prior to OEB's December 2009 *Report of the Board on the Cost of Capital for Ontario's Regulated Utilities*; subsequent allowed ROEs expected to be based on benchmark ROE of 9.75%.

^{2/} ROE for first six months of 2009; PNG capital structure and ROE currently in proceeding before the BCUC. New ROE expected to be equal to benchmark utility ROE of 9.50% plus a risk premium.

^{3/} Capital structure and ROE not specified; ROE is the NEB's calculation at TQM's requested common equity ratio of 40%.

^{4/} Multi-pipeline ROE for 2009; 2010 ROE not yet determined.

Source: Regulatory Decisions.

**RATES OF RETURN ON COMMON EQUITY ADOPTED BY
REGULATORY BOARDS FOR CANADIAN UTILITIES**

	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>
Electric Utilities																				
AltaLink	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9.40	9.60	9.50	8.93	8.51	8.75	9.00
ATCO Electric	13.50	13.50	13.25	11.88	NA	NA	11.25	^{1/}	^{1/}	^{1/}	^{1/}	^{1/}	^{1/}	9.40	9.60	9.50	8.93	8.51	8.75	9.00
FortisAlberta Inc.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9.50	9.50	9.60	9.50	8.93	8.51	8.75	9.00
FortisBC Inc. ^{2/}	13.50	NA	11.75	11.50	11.00	12.25	11.25	10.50	10.25	9.50	10.00	9.75	9.53	9.82	9.55	9.43	9.20	8.77	9.02	8.87
Newfoundland Power	13.95	13.25	NA	NA	NA	NA	11.00	NA	9.25	9.25	9.59	9.59	9.05	9.75	9.75	9.24	9.24	8.60	8.95	8.95
Nova Scotia Power	NA	NA	NA	11.75	NA	NA	10.75	NA	NA	NA	NA	NA	10.15	NA	NA	9.55	9.55	9.55	na	9.35
Ontario Electricity Distributors	NA	NA	NA	NA	NA	NA	NA	NA	NA	9.35	9.88	9.88	9.88	9.88	9.88	9.88	9.00	9.00	8.57	8.01
Mean of Electric Utilities	13.65	13.38	12.50	11.71	11.00	12.25	11.06	10.50	9.75	9.37	9.82	9.74	9.62	9.63	9.66	9.51	9.11	8.78	8.80	8.88
Gas Distributors																				
ATCO Gas	13.25	13.25	12.25	12.25	NA	NA	NA	10.50	9.38	NA	NA	9.75	9.75	9.50	9.50	9.50	8.93	8.51	8.75	9.00
Enbridge Gas Distribution	13.25	13.13	13.13	12.30	11.60	11.65	11.88	11.50	10.30	9.51	9.73	9.54	9.66	9.69	NA	9.57	8.74	8.39	8.39	8.39
Gaz Metro	14.25	14.25	14.00	12.50	12.00	12.00	12.00	11.50	10.75	9.64	9.72	9.60	9.67	9.89	9.45	9.69	8.95	8.73	9.05	8.76
Pacific Northern Gas ^{3/}	15.00	14.00	13.25	NA	11.50	12.75	11.75	11.00	10.75	10.00	10.25	10.00	9.88	10.17	9.80	9.68	9.45	9.02	9.27	9.12
Terasen Gas ^{3/}	NA	NA	12.25	NA	10.65	12.00	11.00	10.25	10.00	9.25	9.50	9.25	9.13	9.42	9.15	9.03	8.80	8.37	8.62	8.47
Union Gas	13.75	13.50	13.50	13.00	12.50	11.75	11.75	11.00	10.44	9.61	9.95	9.95	9.95	9.95	9.62	9.62	8.89	8.54	8.54	8.54
Mean of Gas Distributors	13.90	13.63	13.06	12.51	11.65	12.03	11.68	10.96	10.27	9.60	9.83	9.68	9.67	9.77	9.50	9.52	8.96	8.59	8.77	8.71
Gas Pipelines (NEB)																				
TransCanada PipeLines	13.25	13.50	13.25	12.25	11.25	12.25	11.25	10.67	10.21	9.58	9.90	9.61	9.53	9.79	9.56	9.46	8.88	8.46	8.72	8.57
Westcoast Energy	13.25	13.75	12.50	12.25	11.50	12.25	11.25	10.67	10.21	9.58	9.90	9.61	9.53	9.79	9.56	9.46	8.88	8.46	8.72	8.57
Mean of Gas Pipelines	13.25	13.63	12.88	12.25	11.38	12.25	11.25	10.67	10.21	9.58	9.90	9.61	9.53	9.79	9.56	9.46	8.88	8.46	8.72	8.57
Mean of All Companies	13.70	13.57	12.91	12.19	11.50	12.11	11.38	10.84	10.15	9.53	9.84	9.68	9.63	9.71	9.59	9.51	9.02	8.66	8.78	8.77

^{1/} Negotiated settlement, details not available.

^{2/} Negotiated settlement, implicit ROE made public is 10.5%.

^{3/} Allowed ROEs for 2009 for first six months

Source: Regulatory Decisions

COMPARISON BETWEEN ALLOWED RETURNS
FOR CANADIAN AND U.S. UTILITIES

Year	Canadian Utilities			U.S. Utilities			U.S. Electric Utilities			U.S. Gas Utilities		
	Allowed ROE	Average Long Canada Yield	Equity Risk Premium	Allowed ROE	Average Long Treasury Yield	Equity Risk Premium	Allowed ROE	Average Long Treasury Yield	Equity Risk Premium	Allowed ROE	Average Long Treasury Yield	Equity Risk Premium
1990	13.70	10.69	3.01	12.69	8.62	4.07	12.70	8.62	4.08	12.67	8.62	4.05
1991	13.57	9.72	3.85	12.51	8.09	4.43	12.55	8.09	4.47	12.46	8.09	4.38
1992	12.91	8.68	4.23	12.06	7.68	4.39	12.09	7.68	4.42	12.01	7.68	4.34
1993	12.19	7.86	4.33	11.37	6.58	4.79	11.41	6.58	4.83	11.35	6.58	4.77
1994	11.50	8.69	2.81	11.34	7.41	3.93	11.34	7.41	3.93	11.35	7.41	3.94
1995	12.11	8.41	3.71	11.51	6.81	4.70	11.55	6.81	4.74	11.43	6.81	4.62
1996	11.38	7.75	3.63	11.29	6.72	4.57	11.39	6.72	4.67	11.19	6.72	4.47
1997	10.84	6.66	4.18	11.34	6.57	4.77	11.40	6.57	4.83	11.29	6.57	4.72
1998	10.15	5.59	4.56	11.59	5.53	6.06	11.66	5.53	6.13	11.51	5.53	5.98
1999	9.53	5.72	3.81	10.74	5.91	4.83	10.77	5.91	4.86	10.66	5.91	4.75
2000	9.84	5.71	4.13	11.41	5.88	5.53	11.43	5.88	5.55	11.39	5.88	5.51
2001	9.68	5.77	3.92	11.05	5.47	5.58	11.09	5.47	5.62	10.95	5.47	5.48
2002	9.63	5.67	3.97	11.10	5.41	5.69	11.16	5.41	5.75	11.03	5.41	5.62
2003	9.71	5.31	4.40	10.98	5.03	5.95	10.97	5.03	5.94	10.99	5.03	5.96
2004	9.59	5.11	4.48	10.66	5.09	5.56	10.73	5.09	5.64	10.59	5.09	5.50
2005	9.51	4.38	5.13	10.50	4.52	5.98	10.54	4.52	6.02	10.46	4.52	5.94
2006	9.02	4.26	4.76	10.39	4.87	5.52	10.36	4.87	5.49	10.44	4.87	5.57
2007	8.66	4.30	4.37	10.30	4.80	5.51	10.36	4.80	5.56	10.24	4.80	5.44
2008	8.78	4.04	4.74	10.42	4.22	6.20	10.46	4.22	6.24	10.37	4.22	6.15
2009	8.77	3.85	4.92	10.36	4.10	6.27	10.48	4.10	6.39	10.19	4.10	6.10

Means:

1990-1993	13.09	9.24	3.86	12.16	7.74	4.42	12.19	7.74	4.45	12.12	7.74	4.38
1994-1997	11.46	7.88	3.58	11.37	6.88	4.49	11.42	6.88	4.54	11.32	6.88	4.44
1998-2009	9.41	4.98	4.43	10.79	5.07	5.72	10.83	5.07	5.77	10.74	5.07	5.67

Note: For U.S. Treasury yields, 30-year maturities used through January 2002; theoretical 30-year yield from February 2002 to January 2005; 30-year maturities February 2002 forward.

Sources: Regulatory Research Associates; www.snl.com; various Canadian regulatory decisions; Bank of Canada; Federal Reserve; U.S. Treasury.

**TOTAL CAPITAL STRUCTURE RATIOS
OF MAJOR CANADIAN ELECTRIC AND GAS UTILITIES
(2009)**

Company	Debt	Preferred Stock ^{a/}	Common Stock Equity ^{b/}
Maritime Electric	58.5	0.0	41.5
Electric Utilities			
AltaLink L.P.	54.1	0.0	45.9
Chatham-Kent Energy Inc. ^{c/}	40.2	0.0	59.8
CU Inc.	53.7	7.7	38.6
Enersource ^{c/}	56.2	0.0	43.8
ENMAX	43.4	0.0	56.6
Epcor Utilities Inc.	43.7	0.0	56.3
FortisAlberta Inc.	57.3	0.0	42.7
FortisBC Inc.	59.2	0.0	40.8
Hamilton Hydro ^{c/}	36.3	0.0	63.7
Hydro One Inc.	56.2	2.6	41.2
Hydro Ottawa ^{c/}	44.1	0.0	55.9
London Hydro ^{c/}	36.1	0.0	63.9
Newfoundland Power	55.1	1.0	43.8
Nova Scotia Power ^{d/}	58.2	4.6	37.2
Toronto Hydro	54.8	0.0	45.2
Veridian ^{c/}	39.2	0.0	60.8
Gas Distributors			
Enbridge Gas Distribution	57.8	2.1	40.1
Gaz Metropolitain	65.3	0.0	34.7
Pacific Northern Gas	46.0	3.0	51.0
Terasen Gas	65.2	0.0	34.8
Union Gas	61.0	2.9	36.2
Pipelines			
Enbridge Pipelines	57.1	0.0	42.9
Nova Gas Transmission Ltd.	64.3	0.0	35.7
TransCanada Pipelines Ltd.	56.3	1.1	42.7
Westcoast Energy Inc.	58.7	5.4	35.9
Median			
Electric Utilities	53.9	0.0	45.5
Investor-Owned Electric Utilities	56.2	0.5	41.8
All Companies	56.2	0.0	42.9

a/ Includes minority interest in preferred shares of subsidiary companies and preferred securities.

b/ Includes minority interest in common shares of subsidiary companies.

c/ Data for 2008.

d/ Debt includes current portion of preferred shares.

Source: Reports to Shareholders

**FINANCIAL METRICS
FOR CANADIAN UTILITIES
2006-2008**

Company	EBIT Coverage	EBITDA Coverage	FFO/ Total Debt	FFO Coverage
Maritime Electric	2.4	3.3	14.9	2.9
Electric Utilities				
AltaLink L.P.	2.2	4.7	13.3	3.1
Chatham-Kent Energy Inc.	3.8	5.9	32.0	5.3
CU Inc.	2.3	3.9	17.6	3.4
Enersource	2.3	3.9	16.1	3.3
ENMAX Corp.	6.9	12.9	47.3	3.8
EPCOR Utilities Inc. ^{1/}	2.8	3.9	23.2	3.4
FortisAlberta Inc.	2.0	4.1	17.0	4.1
FortisBC Inc.	2.1	3.1	11.3	2.8
Hamilton Utilities	3.6	5.9	34.3	5.0
Hydro One Inc.	2.8	4.9	16.5	3.7
Hydro Ottawa Holding Inc.	3.9	7.0	23.8	5.9
London Hydro	3.1	5.7	24.5	4.5
Newfoundland Power	2.3	3.4	13.6	2.8
Nova Scotia Power	2.6	3.9	18.0	3.5
Toronto Hydro	2.1	4.0	17.8	3.5
Veridian ^{1/}	3.3	5.3	34.4	N/A
Gas Distributors				
Enbridge Gas Distribution	2.2	3.3	13.0	2.8
Gaz Metropolitain	2.3	3.8	19.2	4.7
Pacific Northern Gas ^{1/}	2.4	3.7	11.6	2.2
Terasen Gas	1.9	2.7	9.0	2.4
Union Gas	2.2	3.4	12.4	2.9
Pipelines				
Enbridge Pipelines Inc.	2.9	3.6	12.2	3.1
Nova Gas Transmission Ltd.	2.3	3.6	17.3	3.2
Trans Quebec & Maritimes	2.4	3.8	12.0	2.9
TransCanada PipeLines Ltd.	2.5	3.6	16.7	2.9
Westcoast Energy Inc.	2.4	3.6	16.8	3.6
Medians				
Electrics	2.7	4.4	17.9	3.5
Investor-Owned Electric Utilities	2.3	3.9	15.3	3.3
All Companies	2.4	3.9	16.9	3.4

^{1/}2008 EBIT Coverage, EBITDA Coverage and FFO/Debt for 12 months ending September

Source: DBRS and Standard and Poor's

INDIVIDUAL COMPANY RISK DATA FOR MARITIME ELECTRIC AND THE SAMPLE OF U.S. ELECTRIC UTILITIES

Schedule 5

Page 1 of 2

	Standard & Poor's											Value Line	Value Line
	Business Profile Category (1)	Financial Profile Category (2)	EBIT Coverage 2006-2008 (3)	FFO/Debt Coverage 2006-2008 ^{1&2/} (4)	FFO Interest Coverage 2006-2008 ^{1/} (5)	Debt/Capital ^{2/} 2006-2008 (6)	Corporate Credit Rating (7)	Moody's Debt Rating (8)	Common Equity Ratio ^{3/} 2006-2008 (9)	Common Equity Ratio ^{3/} 2009 (10)	Average	Forecast Return	Forecast Average
											Actual Return on Equity 2006-2008 (11)	on Average Common Equity 2010-2014/2015 (12)	Common Equity Ratios 2010- 2014/2015 (13)
Maritime Electric	Satisfactory	Intermediate	2.4	14.9	2.9	60.6	BBB+	NA	40.4%	41.5%	10.1%	NA	NA
Alliant Energy Corp.	Excellent	Significant	2.9	21.3	4.5	52.9	BBB+	Baa1	57.4%	48.5%	12.9%	9.6%	58.0%
Consolidated Edison	Excellent	Significant	2.9	12.5	3.5	56.3	A-	Baa1	48.1%	48.7%	11.1%	9.4%	51.5%
Dominion Resources	Excellent	Significant	4.4	28.5	3.1	51.5	A-	Baa2	37.2%	38.1%	18.3%	15.4%	44.2%
DTE Energy	Strong	Significant	2.1	12.2	3.1	61.3	BBB	Baa2	40.2%	42.9%	11.1%	10.0%	44.8%
IDACORP Inc.	Excellent	Aggressive	2.3	10.5	3.0	56.1	BBB	Baa2	48.1%	48.7%	8.3%	7.9%	51.5%
Integrus Energy Group Inc.	Strong	Significant	2.4	14.9	3.9	53.2	BBB+	Baa1	47.1%	50.7%	8.5%	8.8%	53.4%
Northeast Utilities	Excellent	Aggressive	2.2	8.3	2.6	59.4	BBB	Baa2	37.6%	40.7%	11.8%	9.2%	39.9%
NorthWestern Energy	Excellent	Aggressive	2.3	21.8	4.1	55.0	BBB	Baa2	48.4%	43.5%	6.8%	na	na
NSTAR	Excellent	Intermediate	3.6	18.8	4.9	61.9	A+	A2	35.7%	38.2%	13.5%	13.8%	54.6%
OGE Energy Corp.	Strong	Significant	4.5	24.2	5.4	54.0	BBB+	Baa1	49.5%	44.4%	15.1%	12.1%	46.1%
PG&E Corp.	Excellent	Significant	2.7	21.6	3.8	56.3	BBB+	Baa1	43.4%	44.2%	13.5%	12.2%	52.9%
Portland General Electric Co.	Strong	Significant	2.3	19.2	3.9	55.5	BBB	Baa2	50.1%	46.9%	7.9%	8.4%	49.3%
Progress Energy Inc.	Excellent	Aggressive	2.4	15.8	3.7	58.7	BBB+	Baa2	44.8%	42.3%	7.6%	9.0%	47.3%
Scana Corp.	Excellent	Aggressive	2.8	16.9	4.0	59.0	BBB+	Baa2	42.1%	41.3%	11.2%	10.3%	46.1%
Southern Co.	Excellent	Intermediate	3.4	19.2	4.7	56.9	A	A3	40.9%	41.5%	14.1%	13.1%	44.2%
Vectren Corp.	Excellent	Significant	2.8	18.8	4.4	59.0	A-	Baa1	41.2%	43.0%	10.4%	10.9%	49.1%
Xcel Energy Inc.	Excellent	Significant	2.3	17.3	3.7	60.0	BBB+	Baa1	43.7%	44.7%	9.8%	10.4%	47.9%
Mean	Excellent	Significant	2.8	17.8	3.9	56.9	BBB+	Baa1	44.4%	44.0%	11.3%	10.7%	48.8%
Median	Excellent	Significant	2.7	18.8	3.9	56.3	BBB+	Baa1	43.7%	43.5%	11.1%	10.1%	48.5%

Notes:

^{1/} Funds from Operations (FFO) is defined as income from continuing operations plus depreciation, amortization, deferred income taxes and investment tax credits less AFUDC and other FFO adjustments.

^{2/} S&P adjusts debt and equity from book values for operating leases, post-retirement benefits and debt-like hybrids.

^{3/} Based on balance sheet values of short-term and long-term debt, preferred shares and common equity.

Sources:

Columns 1, 2, & 7: S&P, "Issuer Ranking: U.S. Regulated Electric Utilities, Strongest to Weakest", March 2, 2010; "Issuer Ranking: U.S. Natural Gas Distributors and Integrated Gas Companies, Strongest to Weakest" March 2, 2010 (for Vectren); and "Issuer Ranking: Canadian Gas and Electric Utility Companies, Strongest to Weakest", February 12, 2010 (NSPI).

Columns 3, 4, 5 & 6: S&P, "Credit Stats: Electric Utilities - U.S.", "Credit Stats: Multi-Utilities - U.S." and "Credit Stats: Electric Utilities - Canada", August 2009.

Column 8: www.moodys.com (3/16/10).

Column 9 and 10: Audited Financial Statements 2006-2009 (Maritime Electric) and S&P's Research Insight.

Column 11: S&P "Nova Scotia Power Inc.", December 10, 2009 and S&P's Research Insight.

Column 12 and 13: Value Line Issue 1 (February 26, 2010), Issue 5 (December 25, 2009), and Issue 11 (February 5, 2010).

**EQUITY RETURN AWARDS AND COMMON EQUITY RATIOS
ADOPTED FOR THE SAMPLE OF U.S. ELECTRIC UTILITIES
2007-2010**

Schedule 5
Page 2 of 2

<u>Parent</u>	<u>Subsidiary</u>	<u>State</u>	<u>Decision Date</u>	<u>Allowed ROE</u>	<u>Allowed Common Equity Ratio</u>	
Alliant Energy Corp.	Interstate P&L	IA	1/4/2010	10.80	49.52	
Alliant Energy Corp.	Wisconsin P&L	WI	12/18/2009	10.40	50.38	
Consolidated Edison	Consolidated Edison Co of NY	NY	3/26/2010	10.15	48.00	
Consolidated Edison	Orange & Rockland	NY	7/16/2008	9.40	48.00	
Consolidated Edison	Rockland Electric Co	NJ	3/22/2007	9.75	46.51	
Dominion Resources	Virginia Electric & Power	VA	3/11/2010	11.30	NA	a/
DTE Energy	Detroit Edison	MI	1/11/2010	11.00	39.48	
IDACORP Inc.	Idaho Power Company	ID	5/29/2009	10.50	49.27	
Integrus Energy Group Inc.	Wisconsin Public Service	WI	1/11/2007	10.90	57.46	
Integrus Energy Group Inc.	Upper Peninsula Power	MI	12/16/2009	10.90	49.52	
Northeast Utilities	Connecticut Light & Power	CT	1/28/2008	9.40	48.99	
Northeast Utilities	Public Service of NH	NH	5/25/2007	9.67	47.66	
OGE Energy Corp.	Oklahoma G&E	AR	5/20/2009	10.25	46.00	b/
PG&E Corp.	Pacific Gas & Electric	CA	3/21/2007	11.35	52.00	
Portland General Electric Co.	Portland General	OR	12/29/2008	10.00	50.00	
Progress Energy Inc.	Progress Energy Florida	FL	3/5/2010	10.50	46.74	
Scana Corp.	South Carolina E&G	SC	12/14/2007	10.70	53.32	
Southern Co.	Georgia Power	GA	12/31/2007	11.25	NA	
Southern Co.	Alabama Power	AL	2007	13.75	45.00	c/
Vectren Corp.	Southern Indiana G&E	IN	8/15/2007	10.40	47.05	
Xcel Energy Inc.	Northern State Power-MN	MN	10/23/2009	10.88	52.47	
Xcel Energy Inc.	Northern State Power-MN	ND	12/31/2008	10.75	51.77	
Xcel Energy Inc.	Public Service of CO	CO	12/3/2009	10.50	58.56	
Xcel Energy Inc.	Southwestern Public Service	NM	8/26/2008	10.18	51.23	
Xcel Energy Inc.	Northern State Power-WI	WI	12/22/2009	10.40	52.30	
Xcel Energy Inc.	Northern State Power-WI	WI	1/8/2008	10.75	52.51	
Mean				10.61	49.74	
Median				10.50	49.52	

a/ Allowed ROE is base return before 60 basis point management efficiency premium.

b/ Allowed common equity ratio based only on debt and equity.

c/ Alabama Power has a rate stabilization and equalization framework that was last revised in 2007.
If ROE is outside a 13-14.5% range, it is adjusted to 13.75%, with an equity ratio ceiling of 45%.

Source: Regulatory Research Associates

**DCF COSTS OF EQUITY FOR
SAMPLE OF U.S. ELECTRIC UTILITIES
(BASED ON ANALYSTS' EARNINGS GROWTH FORECASTS)**

<u>Company</u>	Annualized Last Paid Dividend	Average Daily Closing Prices Feb 16-Mar 15, 2010 ^{1/}	Expected Dividend Yield ^{2/}	I/B/E/S Long-Term EPS Forecasts (February 2010)	DCF Cost of Equity ^{3/}
	(1)	(2)	(3)	(4)	(5)
Alliant Energy	1.58	32.52	5.1	5.6	10.7
Consolidated Edison	2.38	43.33	5.7	3.3	8.9
Dominion Resources	1.83	38.86	4.9	5.0	9.9
DTE Energy	2.12	44.36	5.0	5.0	10.0
IDACORP	1.20	33.77	3.7	5.0	8.7
Integrus	2.72	45.43	6.6	10.0	16.6
Northeast Utilities	1.02	26.32	4.2	8.6	12.9
NorthWestern	1.36	25.64	5.7	7.0	12.7
NSTAR	1.60	34.47	4.9	5.7	10.6
OGE Energy	1.45	37.27	4.1	6.0	10.1
PG&E	1.68	42.37	4.3	7.4	11.7
Portland General Electric	1.02	18.91	5.7	5.8	11.5
Progress Energy	2.48	38.59	6.7	3.7	10.4
SCANA	1.90	36.58	5.5	5.3	10.8
Southern	1.75	32.19	5.7	4.8	10.5
Vectren	1.36	23.61	6.0	5.0	11.0
Xcel Energy	0.98	21.01	5.0	6.2	11.1
Mean	1.67	33.84	5.2	5.8	11.1
Median	1.60	34.47	5.1	5.6	10.7

1/ www.yahoo.com

2/ Expected Dividend Yield = (Col (1) / Col (2)) * (1 + Col (4))

3/ Expected Dividend Yield (Col (3)) + I/B/E/S Growth Forecast (Col (4))

Source: Standard & Poor's Research Insight, I/B/E/S

**DCF COSTS OF EQUITY FOR
SAMPLE OF U.S. ELECTRIC UTILITIES
(THREE-STAGE MODEL)**

<u>Company</u>	<u>Annualized Last Paid Dividend</u>	<u>Average Daily Closing Prices Feb 16-Mar 15, 2010^{1/}</u>	<u>Growth Rates</u>			<u>DCF Cost of Equity^{3/}</u>
			<u>Stage 1: I/B/E/S EPS Forecasts</u>	<u>Stage 2: Average of Stage 1 & 3</u>	<u>Stage 3: GDP Growth^{2/}</u>	
	(1)	(2)	(3)	(4)		(5)
Alliant Energy	1.58	32.52	5.6	5.3	5.0	10.2
Consolidated Edison	2.38	43.33	3.3	4.1	5.0	10.1
Dominion Resources	1.83	38.86	5.0	5.0	5.0	9.9
DTE Energy	2.12	44.36	5.0	5.0	5.0	10.0
IDACORP	1.20	33.77	5.0	5.0	5.0	8.6
Integrus	2.72	45.43	10.0	7.5	5.0	13.3
Northeast Utilities	1.02	26.32	8.6	6.8	5.0	10.0
NorthWestern	1.36	25.64	7.0	6.0	5.0	11.2
NSTAR	1.60	34.47	5.7	5.4	5.0	10.0
OGE Energy	1.45	37.27	6.0	5.5	5.0	9.3
PG&E	1.68	42.37	7.4	6.2	5.0	9.8
Portland General Electric	1.02	18.91	5.8	5.4	5.0	10.9
Progress Energy	2.48	38.59	3.7	4.4	5.0	11.2
SCANA	1.90	36.58	5.3	5.2	5.0	10.5
Southern	1.75	32.19	4.8	4.9	5.0	10.6
Vectren	1.36	23.61	5.0	5.0	5.0	11.0
Xcel Energy	0.98	21.01	6.2	5.6	5.0	10.2
Mean	1.67	33.84	5.8	5.4	5.0	10.4
Median	1.60	34.47	5.6	5.3	5.0	10.2

1/ www.yahoo.com

2/ Forecast nominal rate of GDP growth, 2012-21

3/ Internal Rate of Return: Stage 1 growth rate applies for first 5 years; Stage 2 growth rate applies for years 6-10; Stage 3 growth thereafter.

Source: Standard & Poor's Research Insight; www.yahoo.com; Blue Chip [Economic Indicators](#) (March 2010); I/B/E/S (February 2010)

**MARKET VALUE CAPITAL STRUCTURES FOR
BENCHMARK SAMPLE OF U.S. ELECTRIC UTILITIES**

	Debt and Preferred Shares at Par in \$Millions (December 2009)	Common Share Price Average Daily Closing Price 2/16/2010-3/15/2010	Common Shares Outstanding in Millions (December 2009)	Total Market Capitalization in \$Millions	Market Value Common Equity Ratio
Alliant Energy Corp.	2,648	32.52	111	3,599	57.6%
Consolidated Edison	10,812	43.33	281	12,181	53.0%
Dominion Resources	18,170	38.86	583	22,655	55.5%
DTE Energy	8,368	44.36	165	7,336	46.7%
IDACORP Inc.	1,473	33.77	48	1,618	52.4%
Integrus Energy Group Inc.	2,784	45.43	76	3,472	55.5%
Northeast Utilities	5,218	26.32	175	4,618	46.9%
NorthWestern Energy	1,024	25.64	36	923	47.4%
NSTAR	3,034	34.47	107	3,682	54.8%
OGE Energy Corp.	2,553	37.27	97	3,616	58.6%
PG&E Corp.	13,021	42.37	371	15,701	54.7%
Portland General Electric Co.	1,744	18.91	73	1,377	44.1%
Progress Energy Inc.	12,911	38.59	281	10,845	45.7%
Scana Corp.	4,846	36.58	123	4,499	48.1%
Southern Co.	20,258	32.19	820	26,393	56.6%
Vectren Corp.	1,853	23.61	81	1,915	50.8%
Xcel Energy Inc.	8,996	21.01	458	9,614	51.7%
Mean				\$7,885	51.8%
Median				\$4,499	52.4%

Source: Annual Reports to Shareholders, Standard & Poor's Research Insight, www.yahoo.com

Maritime Electric Company Limited
Rebuttal Testimony of Kathleen McShane
April 2010

1 **REBUTTAL TESTIMONY**

2 **of**

3 **Kathleen C. McShane**

4
5
6 **INTRODUCTION AND PURPOSE OF TESTIMONY**

7
8 **Q. Please state your name and business address.**

9
10 A. My name is Kathleen C. McShane. My business address is Foster Associates
11 Inc., 4550 Montgomery Avenue, Bethesda, Maryland 20814.

12
13 **Q. Are you the same Kathleen C. McShane who previously submitted testimony**
14 **in this proceeding?**

15
16 A. Yes.

17
18 **Q. What is the purpose of your rebuttal testimony?**

19
20 A. The purpose of my rebuttal testimony is to address the cost of capital testimony
21 filed by Dr. Laurence Booth on behalf of the Provincial Government of Prince
22 Edward Island, who has recommended a return on equity for Maritime Electric
23 Company Limited (MECL) of 8.0% applied to a common equity ratio of 40%.

24
25 **THE CAPITAL ASSET PRICING MODEL**

26
27 **Q. Please summarize your understanding of how Dr. Booth arrives at his**
28 **recommended return on equity for MECL.**

29
30 A. Dr. Booth applies the Capital Asset Pricing Model (CAPM).
31

The CAPM says that the return a well-diversified investor should require is equal to the risk-free rate plus (or minus) a premium for the incremental risk that a particular investment contributes to the investment portfolio. The size of that premium is estimated as the market risk premium multiplied by beta. The market risk premium is equal to the return that investors can expect if they held the market portfolio of investments (the market return) minus the risk-free rate.

The formula for the CAPM is set out below.

$$\text{Required Return} = R_F + \beta(R_M - R_F),$$

Where:

R_F = risk-free rate

β = beta

R_M = market return

$R_M - R_F$ = market risk premium.

The risk-free rate, in principle, is equal to the return that investors would require to tie up funds in an investment that has no risk. Since there is no investment that is truly risk-free, a proxy for the risk-free rate must be used. The proxy for the risk-free rate most commonly used for the purpose of applying the CAPM is a long-term government bond yield. Although long-term government bonds are not risk-free, because they are exposed to interest rate risk¹, they are considered to have no default risk.

Beta represents the risk of the security relative to the risk of the market portfolio. In the context of the CAPM, investors are exposed to only one source of risk, market risk. The CAPM holds that, by holding a diversified portfolio of investments, investors can diversify away all risks which are specific to a

¹ Interest rate risk means that, if interest rates change, the value of the bond changes. If interest rates rise while the investor is holding the bond, then the value of his investment will decline.

company or security. The only risks that investors will be compensated for are risks that are common to "the market", for example, the impacts of inflation, recession, and the level of interest rates. The extent to which individual securities are affected by these market, or non-diversifiable risks, is measured by a single risk factor, the beta. The beta measures how the returns of a particular security move with the returns of the market portfolio.

The beta does not measure the absolute volatility of an investment; it measures the volatility of an investment relative to the market portfolio. The beta of the equity securities of a business that is fundamentally very risky could be extremely low or even negative, if the nature of the business is such that its ups and downs are counter-cyclical. Gold stocks, for example, which are regarded as a counter-cyclical investment, could reasonably be expected to exhibit very low or even negative betas. In that case, the CAPM would hold that the cost of equity capital for a gold mining firm would be less than the risk-free rate, despite the fact that, on a total risk basis, the company's stock could be very volatile.

Q. What is Dr. Booth's estimate of the cost of equity for a typical Canadian utility and for MECL based on this model?

A. Dr. Booth estimates the cost of equity for a typical Canadian utility at 7.25%. The 7.25% reflects a long-term Canada bond yield of 4.5%, a market risk premium of 5.5% and a beta for a typical Canadian utility of 0.50 ($4.5\% + (0.50 \times 5.5\%) = 7.25\%$). To the 7.25%, he adds 0.50% for financing flexibility, for a return on equity (ROE) of 7.75% for a typical Canadian utility. For MECL, he adds an additional 0.25% for MECL's small size, leading to his recommended ROE of 8.0%.

Q. What comments do you have with respect to Dr. Booth's sole reliance on the CAPM to estimate a fair return for MECL?

92 A. As stated in my direct testimony (page 3), a fair return is one which provides a
93 utility the opportunity to earn a return on investment commensurate with that of
94 comparable risk enterprises, maintain its financial integrity, and attract capital on
95 reasonable terms. When the fair return is being estimated from “first principles”,
96 reliance on multiple tests ensures that all three requirements of the fair return
97 standard are met. There are three different types of tests that have traditionally
98 been used to estimate the fair return on equity: equity risk premium (including,
99 but not limited to, the Capital Asset Pricing Model), discounted cash flow and
100 comparable earnings tests. Each of the tests is based on different premises and
101 brings a different perspective to the fair return on equity. None of the individual
102 tests is, on its own, a sufficient means of ensuring that all three requirements of
103 the fair return standard are met; each of the tests has its own strengths and
104 weaknesses. Individually, each of the tests can be characterized as a relatively
105 inexact instrument; no single test can pinpoint the fair return.² Moreover,
106 different tests may be more or less reliable depending on prevailing economic and
107 capital market conditions.³ These considerations not only emphasize the
108 importance of reliance on multiple tests when estimating the fair return, but also
109 of benchmarking, or testing the reasonableness of the test results themselves
110 against other relevant information.

111
112 The CAPM, framed in an elegant, simple construct, and, on the surface, with only
113 three components, easy to apply, has an intuitive appeal. Nevertheless, various
114 highly regarded academics have recognized significant problems with both the
115 conceptual basis and the practical application of the CAPM. For example:

² For example, Bonbright states, “No single or group test or technique is conclusive. Therefore, it is generally accepted that commissions may apply their own judgment in arriving at their decisions.” (James C. Bonbright, Albert L. Danielsen, David R. Kamerschen, *Principles of Public Utility Rates*, 2nd Ed., page 317, Arlington, VA.: Public Utility Reports, Inc., March 1988).

³ For example, see Federal Communications Commission, Report and Order 42-43, CC Docket No. 92-133 (1995).

“Equity prices are established in highly volatile and uncertain capital markets... Different forecasting methodologies compete with each other for eminence, only to be superseded by other methodologies as conditions change... In these circumstances, we should not restrict ourselves to one methodology, or even a series of methodologies, that would be applied mechanically. Instead, we conclude that we should adopt a more accommodating and flexible position.”

Empirical tests of the CAPM have, in retrospect, produced results that are often at odds with the theory itself. Much of the failure to find empirical support for the CAPM is due to our lack of ex ante, expectational data. This, combined with our inability to observe or properly measure the return on the true, complete, market portfolio, has contributed to the body of conflicting evidence about the validity of the CAPM. It is also possible that the CAPM does not describe investors' behavior in the marketplace.

Theoretically and empirically, one of the most troubling problems for academics and money managers has been that the CAPM's single source of risk is the market. They believe that the market is not the only factor that is important in determining the return an asset is expected to earn. (Diana R. Harrington, *Modern Portfolio Theory, The Capital Asset Pricing Model & Arbitrage Pricing Theory: A User's Guide*, Second Edition, Prentice-Hall, Inc., 1987, page 188)

Beta, the risk measure from the capital-asset pricing model, looks nice on the surface. It is a simple, easy-to-understand measure of market sensitivity. Alas, beta also has its warts. The actual relationship between beta and rate of return has not corresponded to the relationship predicted in theory during long periods of the twentieth century. Moreover, betas for individual stocks are not stable from period to period, and they are very sensitive to the particular market proxy against which they are measured.

I have argued here that no single measure is likely to capture adequately the variety of systematic risk influences on individual stocks and portfolios. Returns are probably sensitive to general market swings, to changes in interest and inflation rates, to changes in national income, and, undoubtedly, to other economic factors such as exchange rates. And if the best single risk estimate were to be chosen, the traditional beta measure is unlikely to be everyone's first choice. The mystical perfect risk measure is still beyond our grasp. (Burton Malkiel, *A Random Walk Down Wall Street*, New York: W. W. Norton & Co., 2003, page 240)

Beta is not very useful for determining the expected return on a stock, and it actually has nothing to say about the CAPM. For many years, we have been under the illusion that the CAPM is the same as finding that beta and expected returns are related to each other. That is true as a theoretical and philosophical tautology, but pragmatically, they are miles apart. Dr. Stephen A. Ross, "Is Beta Useful?" *The CAPM Controversy: Policy and Strategy Implications for Investment Management*, AIMR, 1993.

160
161 A February 2007 article published in the *Financial Times* (Attachment A to my
162 rebuttal testimony) highlights concerns of both academics and practitioners with
163 respect to the CAPM. The bottom line, based on the level of concerns raised, is
164 that it is not reasonable to conclude that the CAPM is superior to other models,
165 particularly for the purpose of setting a fair return on equity for a utility.
166

167 **Q. Does the CAPM measure the returns that are actually available from**
168 **investments of comparable risk?**
169

170 A. No. It simply attempts to measure the return that an investor should require
171 within the context of a diversified investment portfolio.
172

173 **Q. Dr. Booth's evidence suggests that reliance on the CAPM and on automatic**
174 **adjustment formulas have been the norm in Canada. Has that been the**
175 **norm in PEI?**
176

177 A. No. The Commission has never adopted either the CAPM as a means of
178 determining the allowed ROE or an automatic adjustment formula. My review of
179 the decisions rendered since the passage of the Electric Power Act in 2004 as
180 regards the ROE for MECL indicates that the Commission has approved ROEs
181 that are comparable, on a risk-adjusted basis, to the returns available to the other
182 investor-owned Atlantic Canada electric utilities.⁴ Risk-adjusted in this context
183 means that MECL's allowed ROEs have been consistent with the Commission's
184 conclusion in Order UE06-03 that MECL was of higher risk than the other two
185 Atlantic Canada investor-owned utilities, Nova Scotia Power and Newfoundland
186 Power. The ROEs adopted for MECL for its 2006 to 2009 test years (since Order
187 UE06-03, the first decision since the Electric Power Act to specify the allowed
188 ROE) have been approximately 1.0% higher than the ROEs allowed for

⁴ The Nova Scotia Utilities and Review Board has not adopted the CAPM for setting NSPI's allowed ROE, nor has it adopted an automatic adjustment formula for setting NSPI's allowed ROE.

Newfoundland Power and approximately 0.6% higher than those adopted for NSPI.

RELEVANCE OF 2009 COST OF CAPITAL DECISIONS TO A FAIR RETURN FOR MECL

Q. Dr. Booth's evidence attempts to establish that (1) the ROEs allowed by Canadian regulators in 2009, which deviated from the results of previously operating automatic adjustment formulas, were largely the result of the financial crisis; (2) that Canadian financial markets are now nearly back to normal, given where we are in the business cycle;⁵ and (3) it is likely that regulators will revert to the formulas once they realize that the impacts of the financial crisis were temporary in nature. Would you please comment on these conclusions?

A. It is fair to say that the financial crisis highlighted a flaw in the automatic adjustment formulas. It is also fair to conclude that certain of the cost of capital decisions issued by Canadian regulators in 2009 (the Alberta Utilities Commission generic cost of capital decision and the Régie de l'Énergie decision for Gaz Métro) took explicit account of the financial crisis in their decisions. It would not be fair to say, however, that there had been no concerns with the results of the automatic adjustment formulas prior to the financial crisis. Both of the major debt rating agencies, DBRS and S&P, had been commenting about the relatively low level of allowed ROEs and common equity ratios for Canadian utilities since 2003.

Capital market participants, including pension funds, surveyed by the National Energy Board in its August 2005 *Canadian Hydrocarbon Transportation System* report, indicated to the Board that the basic financial parameters in its regulatory

⁵ It bears noting that, while financial market conditions have improved markedly since the height of the financial crisis, there remain significant risks that the global recovery will not be sustained and that the ongoing debt crisis in Europe will permeate Canadian financial markets.

approach (allowed return on equity and deemed capital structure) should be improved. In the Board's 2007 report,

Many analysts expressed support for a formulaic approach to determining ROEs because of the transparency, stability and predictability that this method provides. However, a number expressed the view that the ROE resulting from the formula was too low, and contend that they are much lower than regulated ROEs in the U.S. and U.K. While views ranged widely on this issue, some felt that the typically lower ROEs in Canada were not justified by the differences in risk for Canadian companies compared to FERC-regulated pipelines. Some parties suggested it was time for the Board to revisit the ROE Formula.

The 2006 quote by Ms. Karen Taylor, the then equity analyst for BMO Capital Markets, set out at page 15 of my testimony, in which she concluded that the formula ROEs were not meeting the fair return standard, preceded and thus were independent of the financial crisis. Comments by other equity analysts regarding the level of the formula ROEs, while coincident with the financial crisis, were more broadly applicable than to solely the financial crisis. The statement by BMO Capital Markets analyst George Lazarevski in *Pipelines and Utilities* (March 30, 2009) cited in my direct testimony at page 16 and repeated below is an example.

We applaud the NEB for acknowledging that the RH-2-94 formula is no longer applicable given the changes in business risk, financial markets and economic conditions. In particular, the globalization of financial markets made it difficult for Canadian operators to compete for capital with such low ROE.

The comment of Scotia Capital (Stephen Dafoe, *Falling Canada Yields and Utility ROEs, Capital Points*) on April 24, 2009 speaks to the negative impact of the financial crisis on the formula results, but expresses concerns with the formula which extend beyond the financial crisis:

The turmoil in financial markets over the last 18 months has had a material knock-on effect on a sector typically seen as a safe haven from adverse equity market volatility and valuations. Energy utilities across

Canada have seen their regulated returns on equity squeezed by falling Government of Canada bond yields, even as the real-world cost of equity capital has risen dramatically.

Beginning with the National Energy Board in early 1995, Canadian energy regulators have largely adopted formula-based annual adjustments to utilities' allowed return on equity. These formula have been based on the capital asset pricing model. A base "risk-free" rate, represented by long Canada bond yields, is augmented by an equity risk premium, chosen to represent the business and financial risk of the utilities. The NEB's formula was created in 1994 and 1995, when Canada long bond yields reached over 9% at times, due to a range of factors, including ratings downgrades, large public sector deficits, and bearish domestic and international market sentiment towards Canadian government debt.

As Canada's public sector reformed its finances, long Canada yields have come down, gradually but steadily, since early 1995. This led to a gradual decline in utility allowed ROEs, which has been a challenge for equity holders, and a challenge for utility management to offset by trying to "over-earn" the regulatory target, which is used to set rates.

The onset of economic and financial market turmoil in late 2007 led to a further, more rapid decline in Canada yields, mimicking the global flight to the safety of top-quality sovereign debt, and reflecting widespread investor aversion to risk of all kinds. This triggered a decrease in Canadian utility regulators' formula-driven ROEs, to unprecedented low levels. However, utility bond spreads, and their cost of equity capital, were rising. Very recently, the NEB recognized these adverse and undesirable results, in what we view as a very significant Decision in the case of Trans Québec & Maritimes Pipeline. The NEB varied from its formula, which it had applied virtually universally to utilities in its jurisdiction since 1995. The ROE relief was material, lifting TQM's ROE from the formula-set 8.46% and 8.71% in 2007 and 2008 (on the NEB's deemed equity capitalization of 30%) to roughly 11.6% to 11.8%, based on the same capital structure and the embedded cost of debt.

Q. Are the results of the TQM decision the result of the financial crisis?

A. That does not appear to be the case. The TQM hearing did, as Dr. Booth states, take place during the financial crisis. However, the proceeding was not initiated as a result of the financial crisis, nor does the decision attribute its findings to the financial crisis. Instead the National Energy Board pointed to changes that had occurred in the economy and capital markets over time as casting doubt on the

298 fundamentals of the formula. For example, as indicated in my direct testimony
299 (page 15), the NEB pointed to the globalization of capital markets and the greater
300 competition for capital as one of the key changes that had occurred since the NEB
301 had initially introduced the automatic adjustment formula in 1995. While the
302 NEB was careful to note that its decision applied to TQM only, subsequent to the
303 decision, the Board discontinued the automatic adjustment formula.

304
305 Further, the NEB did adopt a different approach to estimating the fair return for
306 TQM (an after-tax weighted average cost of capital instead of separate capital
307 structure and ROE components), as Dr. Booth notes. Nevertheless, the Board did
308 provide calculations of the ROE implied at different capital structures to facilitate
309 comparisons with the “traditional” capital structure/ROE approach. As noted at
310 page 15 of my direct testimony, the indicated ROE at a 40% equity ratio was
311 9.7%, which is very similar to what MECL is requesting in this proceeding.

312
313 While Dr. Booth is correct that the NEB found that TQM’s business risks had
314 increased since they were last reviewed in 1994 (and the Board set TQM’s
315 deemed common equity ratio at 30% in its *Reasons for Decision*, RH-2-94, March
316 1995), there is no basis for concluding that TQM’s risks are currently higher than
317 MECL’s; the TQM decision is a reasonable benchmark for assessing MECL’s
318 requested allowed return.

319
320 **Q. What about the BCUC decision for Terasen Gas, which, in turn, impacts a**
321 **number of the utilities regulated by the BCUC?**

322
323 **A.** It is clear from the decision that the BCUC considered that the CAPM itself was
324 problematic. In arriving at its decision to set the allowed ROE for a benchmark
325 utility at 9.50% in Order G-158-09 (December 2009), the British Columbia
326 Utilities Commission (BCUC) stated:

328 The Commission Panel notes that CAPM is based on a theory that can
329 neither be proved nor disproved, relies on a market risk premium which
330 looks back over nine decades and depends on a relative risk factor or beta.
331 The fact that the calculated beta for PNG (considered by Dr. Booth to be
332 the most risky utility in Canada) was 0.26 in 2008 causes the Commission
333 Panel to consider that betas conventionally calculated with reference to the
334 S&P/TSX are distorted and require adjustment. The Commission Panel
335 will give weight to the CAPM approach, but considers that the relative
336 risk factor should be adjusted in a manner consistent with the practice
337 generally followed by analysts so that it yields a result that accords with
338 common sense and is not patently absurd.
339

340 The BCUC estimated the CAPM cost of equity for a benchmark utility at 7.3%-
341 8.3% before any allowance for financing flexibility, but ultimately concluded that,
342 based on the various tests to which the BCUC gave weight, a fair return for the
343 benchmark B.C. utility (Terasen Gas) was 9.50%.
344

345 The BCUC, as Dr. Booth states, did find that the business risk of Terasen Gas
346 (TGI) had increased, and recognized it by increasing TGI's allowed common
347 equity ratio from 35% to 40%. However, there is no basis for concluding that the
348 benchmark utility ROE also increased as a result of an increase in the business
349 risk of Terasen Gas, since the risk premiums of the other BCUC utilities are set in
350 relation to that of the benchmark utility and, and with one exception ⁶, they have
351 remained unchanged. The risk premium of FortisBC (at its allowed common
352 equity ratio of 40%) remained at 0.40% relative to that of TGI, resulting in an
353 ROE of 9.90% for FortisBC. The allowed ROE of FortisBC, which is slightly
354 higher than MECL's requested ROE, is a relevant benchmark for assessing the
355 reasonableness of MECL's proposed 9.75% ROE.
356
357

⁶ The BCUC reduced the incremental risk premium of Terasen Gas (Vancouver Island) relative to the benchmark utility, not because it concluded that the risks of Terasen Gas had increased, but because it concluded that the risks of Terasen Gas (Vancouver Island) had declined since the previous assessment.

358 Q. Were the Ontario Energy Board's benchmark ROE and formula changed as
359 a result of the financial crisis?

360
361 A. While the cost of capital consultation was clearly convened as a result of the
362 financial crisis and the incongruous results of the Ontario Energy Board's (OEB)
363 formula results during the crisis, the outcome of the consultation indicates that the
364 Board had some fundamental concerns with the benchmark return and formula
365 ROEs. In its *Report of the Board on the Cost of Capital for Ontario's Regulated*
366 *Utilities* (EB-2009-0084, December 11, 2009) stated:

367
368 The Board's current formulaic approach for determining ROE is a
369 modified Capital Asset Pricing Model methodology, and in his written
370 comments, Dr. Booth recommended that this practice be continued. Dr.
371 Booth recommended that "the Board base its fair ROE on a risk based
372 opportunity cost model, with overwhelming weight placed on a CAPM
373 estimate".
374

375 This view was not shared by other participants in the consultation, who
376 asserted that the Board should use a wide variety of empirical tests to
377 determine the initial cost of equity, deriving the initial ERP [equity risk
378 premium] directly by examining the relationship between bond yields and
379 equity returns, and indirectly by backing out the implied ERP by
380 deducting forward-looking bond yields from ROE estimates...
381

382 The Board agrees that **the use of multiple tests to directly and indirectly**
383 **estimate the ERP is a superior approach to informing its judgment**
384 **than reliance on a single methodology.** In particular, the Board is
385 concerned that CAPM, as applied by Dr. Booth, does not adequately
386 capture the inverse relationship between the ERP and the long Canada
387 bond yield. As such, the Board does not accept the recommendation that it
388 place overwhelming weight on a CAPM estimate in the determination of
389 the initial ERP.
390

391 In its Cost of Capital report, the OEB established the initial benchmark utility
392 ROE at 9.75%, reflecting a forecast long-term Canada bond yield of 4.25% and an
393 equity risk premium of 5.50%. The Board also revised its previous formula 1) to
394 reflect the empirical evidence it had reviewed during the cost of capital
395 consultation which showed that the cost of equity varied by approximately 50% of

the change in long-term government bonds, rather than the 75% previously reflected in the formula, and 2) to recognize that there was a direct relationship between the utility cost of equity and the spread between government and utility bond yields. The reset of the benchmark utility ROE is internally consistent with the OEB's finding that the sensitivity of the cost of equity to changes in long-term government bond yields is lower than the previous formula had presumed. This finding was independent of the financial crisis.

The initial 9.75% benchmark utility ROE established by the OEB was updated in May 2010 to 9.85% to reflect a higher forecast long-term Canada bond yield (4.46%) and a minimal change in utility bond yield spreads. This ROE applies to electricity distributors whose new rates became effective May 1, 2010. The 9.85% ROE applicable to Ontario's electricity distributors is a relevant benchmark for assessing the reasonableness of MECL's proposed ROE of 9.75%.

Q. How does the Newfoundland Power cost of capital decision reflect the financial crisis?

A. The cost of capital for Newfoundland Power was reviewed as an integral part of a general rates proceeding. The review was not initiated in reaction to the financial crisis. The Board of Commissioners of Public Utilities of Newfoundland and Labrador (PUB NL) made no reference to the financial crisis in its decision, in which it set the allowed ROE for 2010 at 9.0% at a long-term Canada bond yield of 4.5%, with no change in the allowed common equity ratio of 45%. While the PUB NL did suspend the formula, it only made a relatively minor change in the ROE (13 basis points) from the suspended formula's indicated ROE of 8.87%. MECL's requested ROE of 9.75%, whether compared to the actual 9.0% approved for Newfoundland Power for 2010 or the formula ROE of 8.87%, represents a lower premium than the average 1% ROE differential between Newfoundland Power (a lower risk utility than MECL) and MECL that has been approved by the Commission.

427
428 **RELATIVE RISK OF MECL**
429

430 **Q. In his testimony, Dr. Booth concludes that MECL is a low risk utility, for**
431 **which he allows an incremental risk premium of 0.25% for MECL's small**
432 **size. Do you believe that Dr. Booth's assessment of MECL's business risk**
433 **profile is reasonable?**
434

435 **A.** No. First, Dr. Booth does not even acknowledge MECL's relative business risk
436 positioning on Standard & Poor's (or "S&P", the agency that rates MECL and its
437 debt issues) risk spectrum. As stated in my direct testimony, MECL is only one
438 of two companies designated by S&P as a Canadian gas and electric utility whose
439 operations are primarily regulated to be assigned a business risk ranking of
440 "Satisfactory", two categories below (more risky) than the typical Canadian
441 utility, whose business risk ranking is "Excellent." S&P considers MECL to have
442 higher business risk than Nova Scotia Power (NSPI), the only other investor-
443 owned Atlantic Canada utility that S&P rates; S&P places NSPI in the "Strong"
444 business risk category, one ranking category below the "Excellent" ranking of the
445 preponderance of Canadian utilities. The utilities to which S&P accords an
446 "Excellent" business risk profile include companies of smaller size than MECL.⁷
447

448 In arriving at his assessment that MECL is a low risk distribution utility, Dr.
449 Booth appears to conclude that the only factors that are relevant to MECL's
450 business risk profile are MECL's small size and the existence of the ECAM
451 deferral amounts. With respect to the latter, Dr. Booth concludes the deferred
452 ECAM costs are not a risk. Dr. Booth's risk assessment fails to recognize a
453 number of factors that contribute to MECL's higher than average risk profile.
454

⁷ For example, S&P ranks the business risk profile of Chatham Kent Energy, an Ontario electricity distributor, as "Excellent". While the utility is municipally-owned, S&P rates the company on a stand-alone basis. Chatham Kent's revenues and customers are approximately \$100 million and 40,000 respectively, compared to MECL's \$130 million in revenues and 70,000 customers.

- 455 (1) MECL faces higher operating and supply risks relative to the typical
456 Canadian distribution utility. MECL's Island location makes it highly
457 dependent on the submarine cables that connect the Island to the
458 mainland and to the Company's principal sources of power. No other
459 Canadian utilities face a similar level of supply disruption risk.⁸
460
- 461 (2) MECL's dependence on mainland power supplies means that, for
462 reliability purposes, the Company owns on-island generation capacity
463 to serve as back-up in case of supply interruption. While this
464 generation capability is not intended to be operated on a regular basis,
465 MECL has an obligation to ensure that back-up capability is
466 maintained and available. The Ontario and Alberta electricity
467 distributors do not have that obligation.
468
- 469 (3) The Province's Renewable Energy Strategy, enacted by legislation in
470 2005, requires MECL to purchase a portion of its supply from
471 renewable sources (15% in 2010, moving to 30% by 2016). Failure to
472 meet the legislated targets can result in financial penalties. All of
473 MECL's renewable energy supply is generated by on-island wind
474 generation facilities. The intermittent nature of wind as a source of
475 generation creates additional operational and contractual complexities
476 for Maritime Electric which distribution utilities in other provinces
477 which are not responsible for acquiring power supply do not face.
478
- 479 (4) While Dr. Booth acknowledges MECL's small size and low potential
480 growth rates, the Company's service territory covers the entirety of the
481 Island but serves a relatively small number of customers (low
482 population density). With an aging infrastructure and low customer

⁸ One of the cables was actually severed in a storm during late 1997. The timing of the incident gave the Company a narrow window of opportunity to repair the cable before conditions in the Northumberland Strait prevented the repair before the following spring. While the Company was ultimately able to repair the severed cable and return it to service before weather conditions prevented it from doing so, the incident highlights MECL's level of operating risk.

483 growth prospects, MECL faces relatively a relatively high cost
484 structure. A high cost structure puts pressure on rates, which, in turn,
485 raises the risk that MECL will lose its larger customers.⁹
486

487 (5) With respect to regulatory risk, in the mid-1990s, change in legislation
488 completely altered the regulatory model to which MECL was subject.
489 The legislation replaced rate of return/rate base regulation with price
490 cap regulation which limited MECL's regulated prices to those of NB
491 Power plus 10%, exposing the utility to significant financial pressures.
492 While the Company has since been returned to rate base/rate of return
493 regulation as a result of the Electric Power Act, the experience
494 demonstrates that regulatory risk is more than simply an abstract
495 concept. In this proceeding, the very fact that the issue of whether the
496 Company's total capital structure and cost of capital should be applied
497 to the ECAM balances is a concrete example of regulatory risk.
498

499 (6) As I noted in my direct evidence, the ECAM provides MECL with an
500 opportunity to recover variances between forecast and actual power
501 costs, similar to the opportunities afforded utilities like Nova Scotia
502 Power and Newfoundland Power. However, as I indicated in my
503 direct evidence (page 10), the amounts that are recoverable from or
504 refundable to customers for these utilities have been relatively small
505 compared to total revenues and disposed of within a relatively short
506 period of time.¹⁰ For MECL, the preponderance of the costs to be
507 recovered relate to replacement costs of energy incurred while the
508 Point Lepreau nuclear plant is being refurbished. These costs, which
509 are expected to reach in excess of 10% of total assets in 2011, and
510 which are expected to be recovered over the 25-year refurbished life of

⁹ MECL lost its largest wholesale customer in 2002, when it opted to become a transmission services only customer.

¹⁰ Terasen Gas makes monthly adjustments to its cost of gas charged to customers for the difference between forecast and actual gas costs; NSPI and Newfoundland Power make annual rate adjustments for increases and decreases in the cost of fuel.

the Point Lepreau plant, expose the Company to incremental cash flow and financing pressures. Moreover, the fact that the preponderance of these costs are expected to be recovered over the life of the refurbished Point Lepreau nuclear plant exposes the utility to higher risk that the costs will not be fully recovered than if the costs were recovered over the shorter periods of time typical of such deferral accounts.

All of these considerations support the Commission's conclusion in Order UE06-03 that MECL is a higher risk utility than the other two Atlantic Canada investor-owned electric utilities.

Q. In arriving at his conclusions regarding the overall risk of MECL, did Dr. Booth take into account the Company's credit metrics?

A. Dr. Booth does not appear to take into account the Company's credit metrics (e.g., interest coverage ratios, cash flow coverage ratios) and the impact of his recommendations on the Company's financial strength, as he does not refer to them. As I stated at page 13, "A comparison of MECL's key quantitative credit metrics with those of its Canadian peers shows that, even with capital structure ratios that have been reasonably comparable to its peers and allowed returns on equity in the range of 9.75% to 10.25%, MECL's 2006-2008 credit metrics were generally weaker than its Canadian peers." In its March 2009 credit rating report for MECL, S&P concluded that MECL's credit metrics are somewhat weak, but acceptable for the ratings given the stability of the regulated operations. In discussing the credit metrics, S&P cited the 2008 FFO interest coverage ratio of 3.2 times. In its Application, MECL forecast the FFO coverage ratio would be unchanged at 3.2 times for 2010 and 2011 based on the applied-for ROE of 9.75% and forecast common equity ratios. The adoption of an allowed ROE of 8.0% as recommended by Dr. Booth would result in a deterioration of credit metrics that are already considered to be somewhat weak.

542 **Q. Dr. Booth takes the position that the issuer rating of MECL, which is BBB+**
543 **by S&P, is meaningless, because all of MECL's debt is secured debt, which is**
544 **rated A by S&P. Do you agree?**

545
546 **A.** No. The rating on secured debt reflects not only the fact that the debt is secured
547 by the assets of the Company but also the specific covenants that lenders require.
548 The preponderance of the debt issued by Canadian utilities is unsecured debt.
549 Further, their issuer ratings and unsecured debt ratings are the same. The
550 comparison of MECL's S&P issuer rating to the issuer ratings/unsecured debt
551 ratings of the universe of regulated Canadian utilities rated by S&P allows an
552 "apples to apples" comparison. The average S&P issuer/unsecured debt rating for
553 Canadian utilities is A-, higher than MECL's BBB+ issuer rating. MECL's lower
554 issuer rating relative to that of the universe of regulated companies indicates that,
555 from a bond rating agency perspective, MECL faces higher total (business,
556 regulatory and financial) risk than the typical Canadian utility.

557
558 **Q. Dr. Booth states at page 2 of his testimony, "I am comfortable with the**
559 **legislated 40% common equity ratio even though that is marginally high and**
560 **generally only applicable to publicly owned Discos, like those in Ontario or**
561 **Alberta." Please comment on Dr. Booth's assertions.**

562
563 **A.** A 40% common equity ratio applies to all the distribution utilities in Ontario,
564 whether they are publicly owned or investor owned. The several Ontario electric
565 distribution utilities owned by FortisOntario have allowed common equity ratios,
566 like their publicly owned counterparts, of 40%. In Alberta, the investor-owned
567 distribution utilities are allowed a common equity ratio of 39%. As discussed in
568 my testimony at page 10, "In Alberta, the electricity distribution utilities no longer
569 purchase electricity. Both FortisAlberta and ATCO Electric have divested their
570 retail electricity operations. In Ontario, the electricity distributors no longer have
571 an obligation to ensure an adequate supply of electricity and do not enter into
572 power purchase agreements.

573
574 In contrast, MECL has a mandate to supply the most reliable energy at the lowest
575 possible cost while maintaining a high level of customer service. In neither
576 province do the electricity distributors own and operate any generation assets.”
577 These differences point to a materially different operating environment in Alberta
578 and Ontario compared to PEI and to lower business risk for the Alberta and
579 Ontario distribution utilities compared to MECL. Newfoundland Power, which
580 Dr. Booth failed to mention, and which has access to a more comprehensive slate
581 of deferral accounts than MECL (which mitigate short-term business risk), is
582 allowed a common equity ratio of 45%. I see no basis for Dr. Booth’s conclusion
583 that MECL’s common equity ratio is marginally high.
584

585 **Q. While Dr. Booth expresses the view that he is comfortable with the 40%**
586 **equity ratio, he also states, with respect to the ECAM balances, “his only**
587 **concern is that the cost of financing these deferrals will be the cost of capital,**
588 **rather than the short term borrowing cost.” Do you see an inconsistency in**
589 **these two conclusions?**
590

591 **A.** Yes. MECL’s equity ratios, forecast to be 41.8% and 41.0% in 2010 and 2011
592 respectively, are financing the totality of its utility-related assets, including the
593 ECAM balances. It is not possible to simultaneously maintain a common equity
594 ratio of 40%, the minimum prescribed by legislation, and finance the ECAM
595 balances with short-term debt, especially since the deferrals are long-term in
596 nature. Moreover, even if reducing the common equity ratio below 40% by
597 financing the ECAM balances with short-term debt were possible, the
598 implications of the lower common equity ratio would be higher financial risk and
599 a higher cost of capital, both for debt and equity.
600
601

602 **CONCLUSIONS**

603

604 **Q. What conclusions have you drawn from your assessment of Dr. Booth's**
605 **evidence?**

606

607 **A. My conclusions are as follows:**

608

609 (1) Dr. Booth's recommended ROE of 8.0% is based entirely on the
610 CAPM, a test which has never been applied in this jurisdiction.
611 Furthermore the test has faults which precede the current financial
612 crisis. The test does not attempt to measure the returns available from
613 comparable investments, one of the requirements of the fair return
614 standard.

615

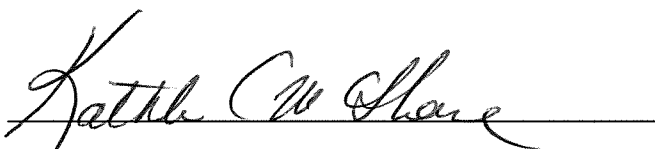
616 (2) Despite Dr. Booth's claims to the contrary, the recent cost of capital
617 decisions of regulators for other Canadian utilities are relevant
618 benchmarks for MECL and supportive of the requested ROE of 9.75%.

619

620 (3) Dr. Booth's business risk analysis fails to appreciate the differences
621 between the operating environment of MECL and other Canadian
622 electric utilities, with the result that Dr. Booth underestimates the
623 relative business risk of MECL. He has also failed to consider the
624 negative impact of his recommendations on the financial risk of
625 MECL.

(4) Acceptance of Dr. Booth's recommended ROE of 8.0% for MECL would result in MECL being allowed the lowest ROE in Canada despite its higher than average risk. Conversely, the Company's proposed ROE of 9.75% represents a return that is reasonably comparable to the returns available to other Canadian utilities, particularly in light of MECL's higher than average risk.

This concludes my written rebuttal evidence in this matter.

A handwritten signature in cursive script, reading "Kathleen C. McShane", is written over a horizontal line.

Kathleen C. McShane

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