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Interrogatories of Commission Expert

TO: Maritime Electric Company, Limited

FROM: Laurence Booth

DATE: January 7, 2019

RE: General Rate Application
Docket: UE20944

Interrogatories to Maritime Electric Company, Limited ("MEC")

1. Please provide the following data for the regulated assets for each year since 2000 consistent with the values used by S&P in their ratings analysis:

   a. EBIT
   b. EBITDA
   c. Net interest expense
   d. Net income
   e. FFO and explain deviations from EBITDA
   f. Total debt
   g. Total common equity
   h. Debt to EBITDA from b) and f)
   i. FFO to Total debt from e) and f)
   j. Interest coverage ratio
   k. Please explain any significant deviations between the data in a)-j) used by S&P versus the regulated accounts.

2. Please provide the regulated ROE and actual ROE for each year since 1990 and explain any material differences between the two outside of a +/- 0.50% band. When MEC was under the terms of the Accord or its equivalent please use the last allowed ROE.

3. MEC discusses its use of deferral accounts in Section 5. Please indicate whether MEC has ever requested and then been denied a deferral or variance account since 2000 and provide a brief synopsis of the reasons why it was denied and reference the decision order.

4. MEC provides its latest S&P bond report in Appendix 12. Is MEC aware that unless a subsidiary is ring fenced S&P generally will not rate an operating subsidiary higher than its parent? If so:

   a. Please discuss what measures MEC has considered to ring fence MEC from its ultimate parent Fortis.

   b. Please indicate why MEC does not have a bond rating from DBRS and whether it is aware that DBRS does not have the same policy toward parent-subsidiary ratings as S&P.

   c. Has MEC ever had a DBRS bond rating? If so, please provide the DBRS and equivalent S&P report from the same point in time. If the S&P rating resulted from its takeover of CBRS, please provide the CBRS report instead and indicate whether MEC's rating was changed on S&P's acquisition of CBRS.

5. Please provide MEC's annual earnings per share and dividend per share for each year since 1990 and indicate any changes in the dividend policy following its acquisition by Fortis and its delisting from the Toronto Stock Exchange.

6. Consistent with the data in 5) above, please provide the annual book value per share and calculate the compound growth rate in dividends per share, earnings per share and book value per share since 1990.

7. In Manitoba the *Affordable Utility Rate Accountability Act* of 2012 requires the following:

   > *Report on comparison of utility costs*
   > *1 For each fiscal year ending after 2012, the Minister of Finance must engage an independent accounting firm to prepare a report that, for each province of Canada, lists a comparable cost, determined in accordance with the regulations, of a utility bundle consisting of*
   > *(a) electricity for home use;*
   > *(b) natural gas for home heating; and*
   > *(c) automobile insurance.*

   Please provide a copy of the last survey (May 1, 2017) and provide equivalent data for a Charlottetown resident to that contained on page 3 of the survey.

8. In its Natural Gas Annual Review for 2018, the Canadian Gas Association (http://www.cga.ca/publication/natural-gas-annual-review-2018/) estimates residential space and water heating costs across Canada for 2017. Please provide an equivalent table for MEC comparing electricity (heat pump or regular service) with the most competitive alternatives.

9. When MEC raises debt capital, in the judgment of the Company do investors buy the debt based on its corporate credit rating of BBB+ or its issue rating recognising the fact that MEC issues first mortgage bonds?

10. Please indicate and provide copies of any materials provided to Mr. Trogonoski or Concentric Energy Advisors, Inc. so that he could form his opinion on MEC's fair rate of return and financial structure.

<u>Interrogatories to Mr. John Trogonoski and Concentric Energy Advisors, Inc.</u>

11. Mr. James Coyne of Concentric Energy Advisors, Inc. ("Concentric") provided an opinion on Newfoundland Power's fair ROE and common equity ratio in evidence dated June 2018. Please indicate Mr. Coyne's involvement in Mr. Trogonoski's current evidence on behalf of MEC dated November 27, 2018 and any substantive differences in the approach taken by Mr. Trogonoski versus that taken by Mr. Coyne.

12. Please indicate whether Mr. Trogonoski has ever filed joint testimony with Mr. Coyne before a Canadian regulator and if so, please indicate the company and the hearing details.

13. Please indicate Mr. Coyne's assistance, if any, in answering any of the following interrogatories.

14. On page 2 of Mr. Trogonoski's report he refers to co-authoring a report summarising ROEs and capital structures for Canadian and US utilities over the past five years. Please provide copies of these reports.

15. When discussing business and financial risk on page 9, can Mr. Trogonoski confirm that as a matter of arithmetic, if a regulated firm has extensive use of deferral accounts and always earns its allowed ROE then the use of debt financing, after the fact, has not increased the risk to the common shareholder? If Mr. Trogonoski does not agree, please explain in detail how the shareholder has been harmed by the use of debt financing.

16. On pages 10-11 Mr. Trogonoski cites the Bank of Canada's Financial System Review for risks posed for the Canadian economy, two of these are moderate and one elevated, but declining. Can Mr. Trogonoski confirm that this is the lowest risk assessment since the financial crisis in 2008/9 and that moderate is the lowest risk ranking used by the Bank. Please discuss in detail why if Mr. Trogonoski disagrees.

17. On page 19 Mr. Trogonoski refers to the "integration" between Canadian and US capital markets.

    a. Does Mr. Trogonoski agree that if two securities are combined in a portfolio that unless they are perfectly correlated the overall risk of the portfolio decreases?

    b. Does Mr. Trogonoski agree that if investors are now able to buy US and Canadian (and global) securities that unless they are all perfectly correlated the risk of a portfolio decreases?

    c. Does Mr. Trogonoski agree that if risk decreases so too does the required and fair rate of return?

    d. Can Mr. Trogonoski point to areas in his evidence where he has taken into account the reduced risk and lower required returns consistent with increasing market integration between the US and Canada?

    e. If Mr. Trogonoski disagrees with anything in a)-d) can he provide references to any research that shows that increasing integration of capital markets does *not* cause risk and the fair rate of return to decrease?

    f. Mr. Trogonoski points to the correlation between GDP growth rates between the US and Canada, unemployment rates, inflation etc., as indicators of integration between the two countries. Can Mr. Trogonoski provide a similar analysis for Canada and the UK, Japan and Europe. Would Mr. Trogonoski accept evidence from those other countries for the cost of capital if the comparisons are similar to that made between the US and Canada?

g. Mr. Trogonoski notes that yields on 10 year government bonds in the US and Canada have been similar. Can Mr. Trogonoski provide the underlying data on which his judgement on page 21 is based, as well as similar data for 91 day Treasury Bill yields and the long bond (30 year) yield.

h. Does Mr. Trogonoski agree that integration means the “law of one price” holds, that is, the same thing sells for the same price in both countries. If not why not?

i. Does Mr. Trogonoski attribute any relevance to the fact that currently long-term (30 year) US government bond yields are higher than the equivalents in Canada, have been for almost ten years, and are expected to remain so?

18. On page 23 Mr. Trogonoski lists his US electric proxy group:

a. Please indicate why Southern Electric did not make Mr. Trogonoski’s sample whereas it made Mr. Coyne’s sample in his Newfoundland Power evidence entered shortly before Mr. Trogonoski’s evidence on behalf of MEC.

b. Please confirm that all the firms in Mr. Trogonoski’s proxy sample are holding companies, rather than operating companies. As holding companies, in Mr. Trogonoski’s opinion, is the sample more comparable to another holding company, like Fortis, or an operating company, like MEC?

c. In Mr. Trogonoski’s opinion is the debt of a holding company, all else the same, more or less risky than an operating company with the same financial ratios. Please explain in detail why or why not.

d. Please confirm that if no adjustments are made to Mr. Trogonoski’s US sample results he is assuming not just that the samples are comparable, but that they are identical. If not why not.

e. Is Mr. Trogonoski aware that a previous US witness appearing on behalf of Canadian utilities (Ms. McShane in an AUC 2012 hearing) answered an interrogatory CAPP-IR-RI(OE 9a) where she stated:

> *Ms. McShane “agrees that the universe of US utilities has higher business risk than the typical Canadian utility, which is a wires and pipes utility, whereas the preponderance of US utilities are integrated electric utilities, which are of inherently higher business risk than distribution utilities.”*

Does. Mr. Trogonoski disagree with this general assessment of US versus Canadian electric utilities and if so, please explain in detail why or why not.

19. At page 24 Mr. Trogonoski suggests that Canadian regulators have accepted the use of US data and cites the NEB, BCUC, OEB, AUC and the Regie. In each case can he provide explicit references to board decisions to the effect that these regulators have accepted such comparisons *without* making any qualifications or adjustments?

a. Is Mr. Trogonoski aware that in 2009 the Regie stated (Gaz Metro decision page 295):

> *The evidence therefore does not make it possible to conclude that the regulatory, institutional, economic and financial contexts of the two countries and their impacts on the resulting opportunities for investors are comparable.*

b. Would he also agree that both the BCUC and Newfoundland PUB, for example, reduced US DCF estimates *downwards* by 0.50-1.0% when applied to Canadian companies. If not, why not and please explain in detail and provide the evidentiary record.

20. In terms of the DCF model highlighted on page 25, can Mr. Trogonoski confirm that in deriving the equation at line 14 from that on line 5 the growth rate is assumed to be a long run average growth rate *in perpetuity*. That is, the DCF model is normally referred to as the constant growth model? If not, please derive the DCF equation from the general formula (1) without assuming constant growth in perpetuity.

21. On page 27 Mr. Trogonoski states that "*it is reasonable to assume that dividend increases will be evenly distributed over calendar quarters*." Please provide all justification for this assumption, since in Canada dividends are normally increased once a year after the release of the annual report. In particular, please indicate whether Mr. Trogonoski discussed with MEC whether dividends were paid and increased on a regular quarterly basis to its parent.

22. Mr. Trogonoski uses growth forecast from Zacks, First Call, and SNL Financial for use in his constant growth model estimates.

    a. Please confirm that these growth estimates are *perpetual* or at least very long run growth rate estimates consistent with the DCF model and provide evidentiary support for this statement. If he is not able to do this, please provide the average duration or time-period of the forecast, for example one-year ahead, two-years ahead, etc.

    b. Please confirm that these are forecast *earnings* growth rates, whereas the DCF model is based on *dividend* growth rates. If not, please provide all evidentiary support for the assumption that forecast earnings and dividend growth rates are identical and if so, over what time-period.

    c. Please indicate why there is no adjustment for the well-known "optimism" bias in analyst earnings forecasts indicating that analyst estimates are consistently biased high estimates of subsequent growth rates.

    d. Is it Mr. Trogonoski's opinion that because "*analysts' earnings growth forecasts are widely available*" (page 28) they can be used even if they do not match the DCF model's assumptions?

    e. Has Mr. Trogonoski ever appeared before the FERC and is he aware of the FERC's decision not to accept evidence on the constant growth DCF model and that instead rely on a multi-stage DCF model?

23. Referring to Mr. Trogonoski's multi-stage DCF estimates on which he places "less weight," while preferring the constant growth model estimates:

    a. At page 30 Mr. Trogonoski has GDP growth rate estimates for the US and Canada at no more than 4.35%. Does Mr. Trogonoski agree that no utility can grow forever (in perpetuity) at a rate faster than GDP, otherwise it will eventually become GDP. If not, why not and explain in detail.

    b. Can Mr. Trogonoski confirm that in his multi-stage DCF estimates he uses the average of the short term growth estimates used in his constant growth DCF estimates for a five year period, that is, column 3 in the multi-stage estimates is simply column 8 in his constant growth estimates? If not why not.

    c. Does Mr. Trogonoski agree that if these analyst growth estimates are regarded as too high, for whatever reason for use in the constant growth model, they will still be too high when embedded in a multi-stage growth model? If not please explain why not.

    d. Does Mr. Trogonoski agree that as a matter of arithmetic the average growth rate in both the constant and multi-stage US DCF estimates exceeds that of GDP? If not please explain why not.

    e. Please provide all evidence that Mr. Trogonoski is aware of that dividends paid by this sample of US utilities has exceeded the growth rate of US GDP over the last 20 years. If he asserts that it has, please provide the annual dividend per share for each firm in the US proxy sample back to 1990 and calculate the compound annual dividend per share growth rate for each and compare to that for US GDP.

24. Referring to Mr. Trogonoski's CAPM estimates:

    a. On page 32, he uses a 3.07% forecast 30-year government bond rate for Canada and 3.40% for the US. Please explain in detail how this is consistent with his assumption about market integration so that financial markets in the US and Canada are integrated and data can be used interchangeably between the two without any adjustment.

    b. Please indicate the cost of a Value Line subscription and whether it is widely available and used in Canada.

    c. Please indicate whether Mr. Trogonoski is aware of the academic literature that indicates that weekly betas are biased high estimates of the true betas for "fat" stocks and vice versa for "thinly" traded stocks. If so, please indicate why he has not made any adjustments for this empirical fact.

    d. Mr. Trogonoski refers to "numerous" studies (page 33) to justify "adjusting" betas:

        i. Please provide references and copies of any such research conducted in the last 20 years.

        ii. Please provide any empirical research on Canadian or US utilities that justify the beta adjustment model on which Mr. Trogonoski's estimates are based.

iii. Please confirm that if a security's beta coefficient is correctly estimated without any error at 0.33, then the effect of the Blume adjustment is to increase the beta. If Mr. Trogonoski disagrees please indicate the reasons why.

iv. Please confirm that the Brattle report referred to on page 34 was prepared by a consulting firm that ordinarily intervenes in utility hearings on behalf of utilities.

e. In terms of the market risk premium:

i. Mr. Trogonoski refers to a 1998 study. Is he aware of any more recent work on the impact of interest rates on the market risk premium? If so, can Mr. Trogonoski file a more recent study looking at the relationship between the market risk premium and interest rates published at any time over the last 10 years.

ii. Is Mr. Trogonoski aware of current survey work that asks market participants about the market risk premium they actually use in their work and if so, can he file summaries of such work.

iii. On page 35, Mr. Trogonoski refers to the Duff and Phelps data on which historic US estimates of the market risk premium are based. Is he aware that Duff and Phelps produce current estimates of the US market risk premium? If so, can he file their latest forward-looking estimates?

25. Mr. Trogonoski reports a forward looking market risk premium estimate based on subtracting the risk free rate from the overall market return estimated by using the constant growth DCF model:

a. Can Mr. Trogonoski confirm that the basis for the growth rate forecast in column 3 of both JPT-5 and 6 is a short run analyst forecast? If Mr. Trogonoski does not agree, please indicate the source of these growth estimates and the average duration (term) of them.

b. Does Mr. Trogonoski agree that if the constant growth rate model is not acceptable for whatever reason in direct DCF estimates, then it is equally unacceptable when used to derive this forward-looking market risk premium estimate? If not why not.

c. Can Mr. Trogonoski confirm that his Canadian growth rate estimate averages 11.21% (JPT-5) and his US growth rate 11.45% (JPT-6) and that both vastly exceed his long run GDP growth estimates? Please explain how this can go on in perpetuity as assumed by the constant growth DCF model.

d. In 2016 before the BCUC, Mr. Coyne as an undertaking provided his market risk premium estimates using the equity cost from his multi-stage model, rather than the constant growth DCF model. Can Mr. Trogonoski provide similar estimates of the market risk premium for both the US and Canada similar to those on JPT-5 and JPT-6 only using the multi-stage DCF model?

26. In terms of MEC's business risk:

a. Is Mr. Trogonoski aware of any requests by MEC for a deferral account that have been denied (page 48)?

b. In terms of inter-fuel competition, can Mr. Trogonoski provide the relative cost of using electricity versus competitive fuels for residential space and water heating as of 2011, 2014 and currently?

c. In terms of the comparisons with other Canadian electric and gas utilities (page 50), can Mr. Trogonoski confirm that the comparators are holding and not operating companies? If not please explain why not.

d. In terms of each of the US holding companies in Mr. Trogonoski's US proxy sample, please provide the following annual data from 1990 to the current period:

    i. Earnings per share;
    ii. Dividend per share; and
    iii. Book value per share.

e. In terms of the US proxy sample, can Concentric provide the sample used by them for each hearing they have provided evidence since they first testified in Canada. For each company in the sample, please explain why they are no longer in the current sample and conversely why some of the current set of firms were not in previous samples.

f. Please indicate whether Mr. Trogonoski is aware of the bankruptcy or serious reorganisation of any US utility since 2000 and provide full details.