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ELECTRONIC FILING

British Columbia Utilities Commission
6th Floor, 900 Howe Street
Vancouver, BC V6Z 2N3

Attention: Erica Hamilton
Commission Secretary

Dear Sirs/Mesdames:

**Re: FortisBC Utilities
2012 Generic Cost of Capital Proceeding**

We enclose for filing in the above proceeding the electronic version of the Final Submissions of the FortisBC Utilities dated January 31, 2013, together with electronic copies of the judicial authorities cited.

Fifteen copies of the Final Submissions will follow by courier.

Yours truly,

FASKEN MARTINEAU DuMOULIN LLP

[original signed by Matthew Ghikas]

Matthew Ghikas

MTG/fxm
Enc

* Fasken Martineau DuMoulin LLP is a limited liability partnership and includes law corporations.

BRITISH COLUMBIA UTILITIES COMMISSION
IN THE MATTER OF THE UTILITIES COMMISSION ACT (the “Act”)
R.S.B.C. 1996, Chapter 473

and

**British Columbia Utilities Commission
2012 Generic Cost of Capital Proceeding**

**Final Submission of the
FortisBC Utilities (“FBCU”)**

January 31, 2013

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PART ONE: INTRODUCTION AND OVERVIEW

1. The Fair Return Standard is the touchstone of this proceeding. It requires setting a capital structure and ROE for the benchmark utility FortisBC Energy Inc. ("FEI") that accounts for the comparability of the overall return with the overall returns of other enterprises of similar risk, and allows FEI to maintain its financial integrity and to attract capital in varied market conditions. The Fair Return Standard recognizes that the utility has committed, and is being asked to continue committing, capital on a long-term basis to provide utility service. It recognizes that a fair return on invested capital is a legitimate cost of providing utility service and that the allowed return should reflect the utility's true cost of capital, without compromising the required overall return (i.e., the combined capital structure and return on equity ("ROE")) to achieve lower rates in the short-term.
2. The Commission initiated this Generic Cost of Capital ("GCOC") proceeding in early 2012¹ in response to changing capital market conditions since the 2009 Terasen Utilities ROE and Capital Structure Decision ("2009 Decision").² Although the 2009 proceeding had been initiated at the depth of the financial crisis, capital market conditions had improved significantly by the time the hearing had taken place in Fall 2009. The evidentiary record in 2009 had reflected that improvement. The expert evidence in the present GCOC proceeding demonstrates that the overall state of the capital markets is similar to where the capital markets had stood when the previous benchmark cost of capital hearing had taken place in Fall 2009, albeit for different reasons. The experts, objective market indicators, as well as information from the Bank of Canada, collectively suggest that Canadian equity capital markets are challenging and volatile. The market cost of equity (i.e., the cost of equity for the market as a whole, before accounting for business-specific considerations) has risen since the Fall 2009 cost of capital hearing. Simply put, the current capital market conditions do not provide a basis

¹ Exhibit A-1

² *In the Matter of Terasen Gas Inc., Terasen Gas (Vancouver Island) Inc. and Terasen Gas (Whistler) Inc. Return on Equity and Capital Structure Decision*, Order No. G-158-09, December 16, 2009 ("2009 Decision").

to reduce FEI's overall return (combined common equity ratio and allowed ROE) as intervenors have maintained.

3. At the same time, the business and regulatory fundamentals that define FEI's business risk remain largely unchanged, which is not surprising as just over three years have passed since the previous hearing. In particular:

- (a) FEI's short-term risk, i.e., the risk that FEI will not earn its allowed ROE in a particular test year, is primarily a function of the regulatory constructs that govern how FEI forecasts costs and sets rates. Under the type of cost of service regulation applied to utilities in BC, FEI faces the same risk in each test period of managing to the forecasts reflected in approved rates. FEI mitigates the risk through careful management and the judicious use of deferral accounts. Although FEI (like many other utilities) has long demonstrated the ability to generally achieve its allowed return, the short-term earnings risk can never be eliminated while FEI remains "at risk" for large portions of its revenue requirement. All of the experts who addressed FEI's short-term risk concurred that FEI's deferral account coverage and FEI's ability to manage its costs are substantially unchanged since the 2009 proceedings. Dr. Booth, for instance, concluded that FEI's short-term risk has not changed "in the slightest" since 2009.³
- (b) The FBCU provided extensive evidence on the long-term business risks that affect FEI's ability to recover its invested capital. No new risk factors have been identified since 2009. No risk factors have disappeared either. The implications of most of those risk factors for FEI are unchanged. Some risks are trending higher, and certain factors are lower. Overall, FEI's long-term risk is similar to what it was in 2009.⁴

³ Tr 8, 1475, l. 19 – l. 21 (Booth).

⁴ Exhibit B1-9-6, FBCU Evidence, Appendix H, p. 5 Summary Table.

Capital recovery is dependent on maintaining throughput on the distribution system over the long-term, which generates revenues. Most of the throughput on FEI's system is associated with residential and commercial space and water heating applications, and it is in these sectors that FEI faces its greatest challenges. FEI continues to experience declining use-per-customer ("UPC"), lower capture rates, and declining market share in the core space and water heating market. These trends are adversely affecting FEI's throughput levels, and represent long-term challenges to FEI's ability to recover invested capital through rates. FEI has a duty to continue to make investments in the system that are necessary to serve existing and new customers, but the throughput associated with these investments is lower now than it has ever been. This gives rise to risk.

Dr. Booth has focussed on a comparison of electricity rates and natural gas commodity costs as the basis for a 5 percentage point reduction in FEI's common equity ratio. Dr. Booth's approach oversimplifies FEI's long-term risks. The Commission has recognized in past decisions⁵ that competitiveness is a function of many factors. Commodity costs are lower, but other components of a customer's bill have increased. Customers consider capital costs of their equipment and price volatility as well. The Commission has also recognized that non-price considerations such as government policy, the availability of alternative energy sources, and consumer attitudes towards natural gas all play into consumer energy choices. All of these other competitive considerations have muted the impact of lower natural gas commodity prices and higher electricity rates on the overall competitiveness of delivered natural gas. They continue to drive the observed market trends in the residential and commercial sectors.

⁵ 2009 Decision, and *In the Matter FortisBC Energy Inc. and FortisBC Energy (Vancouver Island) Inc. 211-2014 Price Risk Management Plan Reasons for Decision*, Order No. G-120-11, July 19, 2011 ("PRMP Decision"), discussed later in this submission.

In short, there are no new regulatory or other business considerations that would justify the Commission reducing FEI's common equity ratio or ROE, let alone reducing FEI's common equity ratio by the 5 percentage points recommended by Dr. Booth.

4. FEI's 40% common equity ratio also remains appropriate in light of the capital structures of comparable Canadian utilities. Compared to natural gas utilities in Ontario and Alberta, for instance, natural Gas utilities in BC face more aggressive GHG emission reduction policies, much lower electricity prices, and challenging market trends.

5. FEI's ability to attract capital and maintain its financial integrity, from a debt market perspective⁶, is reflected in its credit rating. The Commission determined in the 2009 Decision that FEI's existing "A3" rating is an appropriate minimum rating. FEI's credit metrics are weak based on the present allowed ROE and capital structure.⁷ Moody's has recently (October 2012) downgraded its assessment of the supportiveness of the BC regulatory framework, which has to date been a significant factor in maintaining FEI's "A3" credit rating.⁸ Material reductions in FEI's common equity ratio and ROE along the lines contemplated by Dr. Booth and Dr. Safir would make it difficult for FEI to maintain a rating in the "A" category. Dr. Booth's implicit approach of seeking to "walk the line" of a downgrade makes little practical sense and has been expressly rejected by the Commission in both the 2006 and 2009 Decisions.

6. Ms. McShane, Dr. Vander Weide, Dr. Booth, and Dr. Safir have each estimated the fair ROE for FEI. Among these experts, Dr. Booth is alone in relying essentially on a single primary test (the Capital Asset Pricing Model or CAPM). The FortisBC Utilities⁹ ("FBCU") agree with the statement in the Brattle Group report that generally accepted best practice is to look

⁶ This distinction is important; equity holders, because of their subordinated claim on assets, face additional risks that may exist even where credit metrics are adequate to protect bondholders from default. Exhibit B1-32, FBCU Rebuttal Evidence, Vander Weide Rebuttal Evidence, p. 8; Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, p. 16.

⁷ Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, p. 64.

⁸ Appendix to Exhibit B1-32, FBCU Evidence, McShane Rebuttal Evidence; Exhibit B1-32, FBCU Rebuttal Evidence, McShane Rebuttal Evidence, p. 6, line 159 to page 7, line 177.

⁹ Comprised of FortisBC Energy Inc. ("FEI"), FortisBC Energy (Vancouver Island) Inc. ("FEVI"), FortisBC Energy (Whistler) Inc. ("FEW") and FortisBC Inc. ("FBC").

at the totality of information from alternative methodologies.¹⁰ Using multiple tests is also consistent with past Commission decisions. No single test, whether the CAPM or otherwise, is a “silver bullet” on which sole reliance is justified. The Commission should, in particular, approach the CAPM results with caution. They are, in isolation, unreasonably low. The CAPM, while well supported in financial theory, does not adequately reflect the legislative and regulatory framework governing utility investments.

7. There was consensus in this proceeding among Ms. McShane, Dr. Vander Weide and Dr. Booth, all of whom had testified in 2009, that the fair overall return for FEI has declined only slightly from what each expert had recommended in 2009. Dr. Vander Weide’s and Ms. McShane’s estimates were 50 bps lower than their estimates in 2009, based on the same capital structure. Dr. Booth’s 2012 recommendation was only 25 bps below his 2009 recommendation.¹¹ The FBCU submit that the Commission should accept the evidence of Ms. McShane and Dr. Vander Weide that the fair ROE for FEI, although lower than those experts had recommended in 2009, is still higher than what the Commission had awarded in the 2009 Decision. The FBCU submit that FEI’s existing capital structure (60% debt and 40% common equity) with a ROE of 10.5% meets the Fair Return Standard in the current market conditions and in light of FEI’s overall business, regulatory and financial risks.

8. This Submission is organized as follows:

- **Part Two - Legal Framework:** A fair overall return is one that meets all three tests of comparability of returns, financial integrity, and capital attraction in varied market conditions. A fair return is not, contrary to what has been suggested by intervenor experts, synonymous with either (a) setting an allowed ROE that is lower than FEI’s true cost of equity capital to reduce rate impacts for customers in the short-term, or (b) the bare minimum required return to attract capital in the present market conditions and to avoid a credit rating downgrade.

¹⁰ Exhibit A2-3, Brattle Group Report, pp. 3-5.

¹¹ In 2009 Dr. Booth had recommended the same 35% common equity ratio as he recommended in this proceeding, together with retaining the ROE AAM. The ROE produced by the AAM at that time had been 7.75%, which is 25 basis points higher than his current ROE estimate based on the same 35% common equity.

- ***Part Three – Capital Market Conditions:*** The equity market conditions are presently very similar, albeit for different reasons, to the conditions that had existed when the 2009 cost of capital proceeding concluded. The market cost of equity has risen since the 2009 Decision.
- ***Part Four - Short-Term Business Risks:*** The short-term business risks facing FEI, which relate to FEI's ability to achieve its allowed return, are essentially the same as in 2009.
- ***Part Five – Long-Term Business Risks:*** Overall, FEI's long-term risk is similar to what it had been in 2009. FEI is seeing the same trends in its business as in 2009 that represent a long-term challenge for cost recovery.
- ***Part Six – Appropriate Capital Structure:*** FEI's existing capital structure remains appropriate having regard to FEI's business risks, the capital structures of comparable utilities, and FEI's credit metrics.
- ***Part Seven – Fair ROE:*** FEI's allowed ROE should be determined with reference to results of multiple tests, consistent with past decisions and best practices. Ms. McShane's and Dr. Vander Weide's estimates of FEI's fair ROE should be favoured over those of Dr. Booth and Dr. Safir for the reasons set out in Part Seven.
- ***Part Eight - Automatic Adjustment Mechanism ("AAM"):*** The Commission should set the ROE with the expectation that it will remain in place for at least three years but no more than five years. Periodic cost of capital proceedings alone, rather than periodic hearings combined with a ROE AAM, is an equally efficient approach and remains the best way to ensure that the allowed return for the benchmark utility meets the Fair Return Standard.
- ***Part Nine – Deemed Debt for Small Utilities:*** The most efficient means of addressing the debt costs of small utilities with no third-party debt is to deem

the debt on a case by case basis and apply an appropriate deemed debt rate. An interest AAM, which results in changes in the debt rates from year to year, is at odds with the long-term nature of utility assets and unnecessarily exposes customers and the utility to interest rate risk on an annual basis.

PART TWO: THE FAIR RETURN STANDARD

9. Part Two addresses the Fair Return Standard, which is the applicable legal test. The FBCU make the following points:

- (a) The Fair Return Standard is, as its name suggests, concerned with the fair return on capital invested by the utility to provide public utility service to customers. There are three distinct elements of the test - financial integrity, capital attraction and comparable return - each of which must be met.
- (b) The overall rate of return allowed for FEI must be based on the utility's true cost of capital with reference to the three elements of the Fair Return Standard, without compromising this legitimate cost of service to achieve lower rates in the short-run.
- (c) The combination of allowed ROE and capital structure should permit FEI to maintain credit ratings that are at a minimum in the "A" credit category in varying market conditions.

A. THE THREE ELEMENTS OF THE LEGAL STANDARD

10. The Fair Return Standard, the obligation on rate regulators to provide for a fair return on capital invested by utilities, is a long-established legal principle throughout North America.¹² It is embodied in sections 60 and 59(5) of the *Utilities Commission Act*¹³ and was

¹² *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)). Discussed in Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane

recognized by the Commission in both the 2006 Decision¹⁴ and the 2009 Decision.¹⁵ The Fair Return Standard recognizes that there is a real cost associated with securing capital to finance the plant and equipment necessary to provide regulated utility services to customers. The cost of capital that must be reflected in a utility's rates is equal to the expected rate of return that investors would require based on the risk-return alternatives available in the competitive capital markets.¹⁶

11. The Federal Court of Appeal¹⁷ has articulated the conceptual basis for the Fair Return Standard in a manner consistent with the evidence of Dr. Vander Weide¹⁸, Ms. McShane¹⁹ and Mr. Coyne.²⁰ The Federal Court of Appeal held:

[6] The cost of capital to a utility is equivalent to the aggregate return on investment investors require in order to keep their capital invested in the utility and to invest new capital in the utility. That return will be made in the form of interest on debt and dividends and capital appreciation on equity. Usually, that return is expressed as the rate of return investors require on their debt or equity investments.

...

[12] Even though cost of capital may be more difficult to estimate than some other costs, it is a real cost that the utility must be able to recover through its revenues. If the Board does not permit the utility to recover its cost of capital, the utility will be unable to raise new capital or engage in refinancing as it will be unable to offer investors the same rate of return as other investment of similar

Evidence, p. 8; Exhibit B1-9-6, FBCU Evidence, Appendix G, Vander Weide Evidence, p. 6; and Exhibit A2-3, Brattle Group Report, p. 2.

¹³ R.S.B.C. 1996, c. 473.

¹⁴ *In the Matter of Terasen Gas Inc. and Terasen Gas (Vancouver Island) Inc., Application to Determine the Appropriate Return on Equity and Capital Structure and to Review and Revise the Automatic Adjustment Mechanism Decision*, Order No. G-14-06, March 2, 2006, ("2006 Decision"), pp. 8 and 48.

¹⁵ 2009 Decision, p. 15.

¹⁶ Exhibit A2-3, Brattle Group Report, p. 2.

¹⁷ *TransCanada PipeLines Ltd. v National Energy Board*, 2004 FCA 149 ("TransCanada Decision") at paras. 6, 12 and 13.

¹⁸ Exhibit B1-9-6, FBCU Evidence, Appendix G, Vander Weide Evidence, p. 10.

¹⁹ Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, pp. 8-9.

²⁰ Exhibit B1-9-6, FBCU Evidence, Appendix I, Coyne Evidence, pp. 10-11.

risk. As well, existing shareholders will insist that retained earnings not be reinvested in the utility.

[13] In the long run, unless a regulated enterprise is allowed to earn its cost of capital, both debt and equity, it will be unable to expand its operations or even maintain existing ones. Eventually, it will go out of business. This will harm not only its shareholders, but also the customers it will no longer be able to service. The impact on customers and ultimately consumers will be even more significant where there is insufficient competition in the market to provide adequate service.

12. In the 2009 Decision, the Commission endorsed²¹ the National Energy Board's ("NEB") articulation of the Fair Return Standard as comprising three elements. The NEB had held in Decision RH-1-2008:

The Fair Return Standard requires that a fair or reasonable overall return on capital should:

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

13. The three requirements of the Fair Return Standard are separate and distinct, and each requirement must be satisfied. The Commission recognized in the 2006 Decision²², for instance, that the comparable return requirement is distinct from the capital attraction standard:

The Commission Panel accepts the relevance of two separate standards namely the capital attraction standard and the comparable returns standard in establishing a fair return on equity for a benchmark low-risk utility. One standard does not trump the other, neither is one subsumed by the other.

²¹ 2009 Decision, p. 15. This articulation of the Fair Return Standard was not disputed by any party in the 2009 Proceeding.

²² 2006 Decision, p. 48.

B. ESTABLISHING FAIR RETURN INDEPENDENTLY FROM RATE IMPACTS

14. The overall rate of return allowed for FEI must be based on the utility's true cost of capital with reference to the three elements of the Fair Return Standard, and without compromising this legitimate cost of service to achieve lower rates. Neither Dr. Safir, nor Dr. Booth has applied this well-established legal principle.

(a) Recovery of Cost of Capital as Legitimate Cost of Service

15. There is a statutory obligation on the Commission, set out in sections 60 and 59(5) of the UCA, to approve rates that afford the utility an opportunity to earn the fair return to which the utility has been found entitled. Binding judicial authorities have referred to this obligation as "absolute".²³ In effect, this means determining the fair return with reference to the three criteria that the Commission employs, without consideration of potential rate impacts. The Commission applied this principle in both the 2006 Decision and the 2009 Decision. The Commission's 2006 Decision stated:²⁴

The Commission Panel does not accept that the reference by Martland J. [in *British Columbia Electric Railway Co. v. British Columbia Public Utilities Commission*] to a "balancing of interests" to mean that the exercise of determining a fair return is an exercise of balancing the customers' interests in low rates, assuming no detrimental effects on the quality of service, with the shareholders' interest in a fair return. In coming to a conclusion of a fair return, the Commission does not consider the rate impacts of the revenue required to yield the fair return. Once the decision is made as to what is a fair return, the Commission has a duty to approve rates that will provide a reasonable opportunity to earn a fair return on invested capital.

16. In the 2009 Decision, the Commission similarly stated:²⁵

As for the Intervenors' submissions that this is not the time for a rate increase, and ICG's submission that the Commission must balance the requirements of customers with those of Terasen, the Commission Panel adopts the

²³ *British Columbia Electric Railway Co. v. Public Utilities Commission*, [1960] S.C.R. 837 at 848 and 856-857; TransCanada Decision, paras. 35-36 and 43.

²⁴ 2006 Decision, p. 8.

²⁵ 2009 Decision, p. 15.

Commission's statement in the 2006 ROE Decision where it made it clear that its obligation was and is to set rates that are fair and reasonable, and to allow a utility the opportunity to earn a fair rate of return.

17. Consistent with these determinations, the Fair Return Standard is not met by the lowest possible overall return. The Commission stated in the 2006 Decision:²⁶

As for the JIESC's lowest cost argument, the Commission Panel shares the view of the NEB, which recognized that "lowest possible" was not the appropriate test when it stated, at page 25 of its RH-2-94 Decision on generic cost of capital:

"Contrary to what some parties advocated during the hearing, the Board is of the view that it is not appropriate to over-leverage a pipeline in order to identify the minimum acceptable deemed common equity ratio possible."

18. The conceptual framework underlying these Commission findings is that FEI's cost of capital is a cost of service that must be recovered in rates. The Commission is determining in this proceeding the amount of that cost, for which provision will be made in rates set by the Commission. Establishing the allowed return for FEI at a level that fails to reflect FEI's true cost of capital as determined with reference to the three standards of capital attraction, financial integrity, and comparable returns would be no more valid than a determination to disallow rate recovery for a prudently incurred capital or operating cost.

(b) Implications for Commission's Assessment of the Evidence

19. The principle that a fair return is not synonymous with the lowest possible return has two key implications for this proceeding.

20. First, the Commission should not rely on, and should now exclude from the record, the evidence on rate impacts to which the FBCU objected during the hearing.²⁷

21. Second, the principle has implications for how the Commission must assess the evidence and recommendations of the experts. Dr. Vander Weide and Ms. McShane apply the

²⁶ 2006 Decision, p. 8.

²⁷ Tr 2, 278, l. 12 – 281, l. 17 (Ghikas Submissions).

proper approach by seeking to ascertain FEI's true cost of capital. By contrast, Dr. Safir was explicit in his opening statement that his approach is based on balancing the interests of shareholders and customers.²⁸ He stated that the "real fight" is about interpreting the data "in a manner that balances the interest of shareholders and customers alike".²⁹ Dr. Safir also contended, without citing any authority, that "where a range of competitive returns is available for evaluation, the outcome of a "fair return" should always favour the lower range presented."³⁰ Dr. Safir's view is fundamentally inconsistent with the authorities on the Fair Return Standard. It calls his evidence into question.

22. Dr. Booth was less explicit than Dr. Safir about compromising the Fair Return Standard to account for ratepayer impacts, but this is effectively what he has done. As discussed later, Dr. Booth advocated an overall return for FEI what would, if adopted, (i) result in very borderline credit metrics, rather than ensuring that FEI maintain a minimum credit rating in the "A" category; (ii) represent such a significant reduction from FEI's current allowed return that it would likely be perceived by credit rating agencies as a material change in regulatory support;³¹ and (iii) reflect a common equity ratio that is lower than the common equity ratios of any of the utilities that Dr. Booth regards as FEI's comparables, despite BC natural gas utilities being subject to risks not shared by peers in Alberta and Ontario.

C. CAPITAL ATTRACTION AND FINANCIAL INTEGRITY REQUIRE MAINTAINING BOND RATING IN THE "A" CATEGORY FOR FEI

23. In the context of debt financing, FEI's ability to attract capital and maintain its financial integrity is reflected in its credit rating. In 2009, the Commission had determined that FEI's capital structure and ROE should be set at a level that would allow the utility to maintain a credit rating that at a minimum is in the "A" rating category: "It [i.e. the Commission Panel] also agrees with Terasen that the combination of the equity ratio and the allowed return thereon

²⁸ Tr 7, 1148, l. 25 – 1149, l. 2 (Safir).

²⁹ Tr 7, 1148, l. 24 – 1149, l. 2 (Safir).

³⁰ Exhibit C4-9, ICG Evidence, Safir Evidence, p. 7, ll. 15-18.

³¹ Exhibit B1-32, FBCU Rebuttal Evidence, McShane Rebuttal Evidence, p. 7.

should be adequate to attract capital on reasonable terms and conditions and allow TGI to maintain the “A3” rating on its debt and unsecured debt from Moody’s.”³² The Commission had anticipated in 2009 that its Decision would maintain an “A3” rating with a “margin of comfort”.³³ The logic that underpinned the Commission’s determination on the appropriateness of FEI maintaining a rating in the “A” category with “a margin of comfort” remains relevant today and should be applied in the context of setting the benchmark ROE and capital structure.³⁴

24. Utilities have an obligation to provide service on demand, and must maintain access to the capital markets to fulfill that obligation. Utilities require long-term financing for long-lived assets. Ms. McShane and Mr. Engen agreed that the deeper, broader nature of the market for debt in the “A” category can better supply FEI’s need for capital as it faces significant future capital expenditure requirements. A debt rating in the “A” category maintains FEI’s ability to issue longer-term debt to finance its long-lived assets, avoiding unwarranted exposure to refinancing risk.³⁵ The case for maintaining credit metrics that will permit FEI to maintain a rating in the “A” category with a “margin of comfort” is, if anything, stronger today than it was in 2009. Utilities all over North America are competing for capital in a global market to meet unprecedented requirements for infrastructure renewal projects.³⁶

25. FEI’s current Moody’s credit rating is “A3”, only one notch above a sub-“A” rating. A downgrade to a sub-“A” rating by Moody’s would adversely impact market access for both future incremental debt issues and refinancing of FEI’s existing debt.³⁷ Although the

³² 2009 Decision, p. 15.

³³ The Commission stated at p. 68 that its decision to increase FEI’s common equity ratio to 40% and allow an ROE of 9.5% would improve FEI’s credit metrics and “enable TGI both to maintain its A3 rating with a margin of comfort and to attract the capital it requires on reasonable terms and conditions.”

³⁴ Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, p.35, ll. 872-880.

³⁵ Exhibit B1-9-6, FBCU Evidence, Appendix E, Engen Evidence, p. 38; Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, p. 36, ll. 893-903.

³⁶ Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, p. 64, l. 1643 to p. 65, l. 1647; Exhibit B1-20, BCUC-FBCU (McShane) IR 1.49.8.1.

³⁷ Tr 4, 633, l. 20 – 634, l. 1 (McShane).

market for lower rated credits in Canada has been growing, it is still relatively small.³⁸ Institutional investors continue to face limits on the proportion of Baa/BBB rated debt that they are allowed to hold in their portfolios or are precluded from investing in Baa/BBB rated debt.³⁹ Ms. McShane observed that regulated issuers with Baa/BBB ratings can be closed out of the Canadian debt market at times, particularly at the longer end (20-30 year term) of the debt market necessary for financing long-term assets.⁴⁰ Mr. Engen similarly stated that the “very small” BBB bond market “is still not robust, is at risk of closing down periodically, and is offering size constrained for long-dated (10+ year) financings.”⁴¹

26. These market access issues generally associated with Baa/BBB-rated regulated issuers would be compounded by investor reaction to a Commission Decision that backs away from seeking to maintain FEI’s “A3” credit rating with a “margin of comfort”. Mr. Engen noted that the reasonable expectation on the part of debt investors that the regulatory environment will remain supportive is a key part of what underlies FEI’s ability to attract investment on more favourable terms than non-regulated entities sharing the same credit rating:⁴²

The investment community has come to view Canada’s regulatory environment as one in which investors’ rights to receive a fair return on and of capital are fundamental and will be protected by regulators. Regulated businesses are viewed as being less risky because they are regulated. If regulated entities find themselves in trouble, regulators will take such reasonable steps as may be necessary to preserve investor rights to a fair return on and of their capital. Because of this special level of regulatory protection, investors provide capital to regulated businesses on more favorable terms (lower pricing) than would be the case for unregulated entities.

³⁸ Canadian corporate debt issuance has historically been, and continues to be, overwhelmingly represented by A-category or higher rated debt. Since the beginning of 2002, total A-category and above rated debt amounted to \$520.5 billion representing approximately 74% of total Canadian corporate debt issuance over the period. In contrast, total BBB-category rated debt issued amounted to just \$96.3 billion or 14% of total corporate debt issuance over the period with lows of \$4.2 billion in issuances in 2002, \$3.8 billion in 2007, and \$5.2 billion in 2008. Exhibit B1-9-6, FBCU Evidence, Appendix E, Engen Evidence, p. 37, Fig. 16.

³⁹ Exhibit B1-9-6, FBCU Evidence, Appendix E, Engen Evidence, p. 39.

⁴⁰ Tr 4, 574 l. 19 – 575, l. 13 (McShane).

⁴¹ Exhibit B1-9-6, FBCU Evidence, Appendix E, Engen Evidence, pp. 37-38.

⁴² Over the past 10 years FEI’s corporate spreads have almost always compared favourably with Canadian generic “A” 3-year spreads. Exhibit B1-20, BCUC-FBCU (Engen) IR 1.21.1.

As indicated above, FEI's credit metrics are already weak. A Commission decision in this Proceeding to set FEI's regulated ROE and capital structure at levels that challenge FEI's ability to maintain a rating in the "A" category would be difficult to reconcile with the supportive regulatory environment in BC that debt holders have come to expect. Any increase in FEI credit spreads due to a ratings downgrade would adversely affect FEI bond investors by reducing the market value of the investments that they hold.⁴³ This has ramifications for FEI's access to capital because, in Ms. McShane's words: "...existing bond investors will say, 'You, the Commission, have negatively impacted the value of our debt. We are going to be a lot less willing to buy any future issues of FEI.'"⁴⁴

27. There is sound logic for preserving the "margin of comfort", as the Commission had set out to do in 2009. FEI's "A3" credit rating, once lost, may be difficult to restore.⁴⁵ Ms. McShane underscored this during the hearing: "Plus, if conditions are bad, it's not like FEI can turn around on a dime and say, 'Oh, we want our A credit rating restored so that we now have market access.'"⁴⁶

28. As discussed later in these submissions, there is no "margin of comfort" inherent in Dr. Booth's and Dr. Safir's recommendations. Dr. Booth's implicit approach of seeking to "walk the line" of a downgrade to a sub-"A" category rating makes little practical sense and is at odds with the Commission's approach in the 2006 and 2009 Decisions.

D. SUMMARY ON FAIR RETURN STANDARD

29. The Commission's role in phase one of this proceeding is to set FEI's ROE and capital structure based on the three criteria of the Fair Return Standard. As the Commission and the NEB have determined, it is not the right approach to set out to identify the minimum return required to avoid adverse consequences like a credit rating downgrade. The Commission should discount the recommendations of Dr. Safir and Dr. Booth. Their respective

⁴³ Exhibit B1-9-6, FBCU Evidence, Appendix E, Engen Evidence, pp. 38-39.

⁴⁴ Tr 4, 574, l. 19 – 575, l. 13 (McShane).

⁴⁵ Exhibit B1-20, BCUC-FBCU IR 1.10.1.

⁴⁶ Tr 4, 574, l. 19 – 575, l. 13 (McShane).

recommended return for FEI, if accepted, would not compensate FEI for the true cost of accessing the necessary capital to maintain utility service. The effect of implementing their recommendations would be to increase the likelihood of a downgrade of FEI's credit rating below the minimum appropriate "A3" rating.

PART THREE: CAPITAL MARKET CONDITIONS SIMILAR TO FALL 2009

30. In this Part, the FBCU address capital market conditions, which affect FEI's cost of capital. The Commission cited changes in the financial markets since the 2009 Decision as a basis for initiating this Proceeding.⁴⁷ The Commission was correct to focus on the conditions at the end of the 2009 proceeding as the relevant point of comparison, rather than the conditions at the beginning of the 2009 proceeding. Capital market conditions had improved substantially during the course of the 2009 regulatory process. The FBCU make the following points below with respect to the current capital market conditions and their impact on FEI's cost of capital:

- (a) The evidence of Mr. Engen and Ms. McShane demonstrates that that current capital market conditions remain broadly similar to the conditions in Fall 2009, albeit for different reasons, and the market cost of equity has increased since the 2009 Decision;
- (b) Dr. Booth painted an overly simplistic picture of capital market conditions. He (i) glossed over the improvement in capital market conditions that had occurred over the course of the 2009 regulatory process; and (ii) sought to reduce the complexities of the current financial market conditions to a "sound bite" from the Governor of the Bank of Canada ("firing on all cylinders"), downplaying the more challenging aspects of current conditions identified by the Bank of Canada and others; and

⁴⁷ Exhibit A-1.

(c) The decline in Government of Canada bond yields is unreliable as an indicator of the change in the market cost of equity, particularly given the current disconnect between Government of Canada yields and utility dividend yields.

31. The FBCU submit that the Commission should base its decision on the balanced and thorough capital markets evidence of Mr. Engen and Ms. McShane. Their capital markets evidence supports Dr. Vander Weide's and Ms. McShane's ROE estimates and capital structure recommendations.

A. EVIDENCE OF MR. ENGEN AND MS. MCSHANE ON CAPITAL MARKET CONDITIONS

32. The evidence of Mr. Engen and Ms. McShane, summarized below, demonstrates that current capital market conditions remain broadly similar to the conditions in Fall 2009, albeit for different reasons. The market cost of equity has increased since Fall 2009.

(a) Mr. Engen's Assessment

33. Mr. Engen is a capital markets expert, with extensive "hands on" experience as a Managing Director of one of Canada's largest investment banks.⁴⁸ He was retained to speak to the capital market conditions and the market cost of equity. Mr. Engen characterized the current state of the equity markets as "challenging and volatile", and determined that the market cost of equity is currently higher than in September 2009.⁴⁹ His conclusions reflected both qualitative assessment of market tone based on his capital markets expertise, and a comparison of objective market indicators.

34. Mr. Engen described how equity capital market conditions are a general indication of investor risk aversion/attraction and the cost of equity. Where equity market conditions are weak, uncertain, or volatile, one would generally expect to see lower investor confidence, heightened investor risk aversion and, accordingly, a higher cost of equity capital.⁵⁰

⁴⁸ Exhibit B1-9-6, FBCU Evidence, Appendix E, Engen Evidence, pp. 4-6; Tr 5, 841, l. 5 – 844, l. 16 (Engen).

⁴⁹ Exhibit B1-9-6, FBCU Evidence, Appendix E, Engen Evidence, pp. 8, 13.

⁵⁰ Exhibit B1-9-6, FBCU Evidence, Appendix E, Engen Evidence, p. 13.

Mr. Engen assessed the current state of the equity market as being “challenging and volatile”, characterized by: (i) a very sensitive market tone; (ii) concern around the sustainability of the U.S. economic recovery; (iii) high levels of market volatility; (iv) increasing market volatility reflecting current uncertainty in global and economic financial conditions (fears of a global economic slowdown, heightened by weak economic data out of the EU and the U.S., and the European sovereign debt crisis); (v) investors adopting an increasingly defensive stance in the face of ongoing market volatility; (vi) mutual fund funds flows continuing to move out of equity and into bond and income mutual funds; and (vii) a persistently higher “valuation bar” for equity.⁵¹

35. At the hearing, Mr. Engen summarized his qualitative assessment in the following response to a question from the Chair:⁵²

MR. ENGEN: A: Well, there's a couple of things that come to mind. The market tone at the end of 2009 isn't much different than it is today, but for different reasons. So we have to bear in mind at the end of 2009 there was tremendous financing activity. We all remember the end of 2008, the beginning of 2009 when markets shut down. Nobody was financing anything.

The bottom -- market bottomed out in March of 2009. That was at its nadir. And unfortunately that was, as some may recall, that was -- and I'm reminded by a client in the form of ATCO that that was the day they chose to do a preferred share offering and it was quite expensive for them.

But shortly after that, as the market began to turn around, there was a true unleashing of financing activity both in the equity market and the bond market. Now there, the concern was fear in that period was we don't know how the financial market is going to look. Is it going to collapse? Is it going to be in any shape next year? There was a lot of risk aversion in the market at that time.

Now, at this time we still have fear and concern in the equity market and the bond market as well. But for a different reason. It isn't about whether we're concerned about financial market collapse. It's about what's going to happen as a result of the sovereign debt crisis in Europe and what does that mean for us? And we've seen that kind of translate into bank valuations and you've seen the bond spreads for generic A's. That's largely being driven by the financial

⁵¹ Exhibit B1-9-6, FBCU Evidence, Appendix E, Engen Evidence, pp. 7-8.

⁵² Tr 6, 949, l. 22- 952, l. 23 (Engen).

institutions who are more exposed to those kinds of risks. The fiscal cliff in the U.S. is figuring large in investors' minds.

So the concern, unease, in the marketplace is in the market much as it was in 2000 [sic-2009], but for different reasons. And then as I say, the indices are some of the things we look to. And then frankly, conversations and discussions about market conditions with our sales and trading folk, with our research analysts, and then I meet with institutional investors around the world, more recently in North America. I just did a long tour across the U.S. where I was meeting with institutional investors in San Francisco, Victoria, Vancouver, Calgary, Toronto, Montreal, and New York. I have yet to see some more next month.

And the message is the same. It's -- we're very concerned about where markets are going. We're unsure about where things are headed. And so consequently I'm favouring bonds over equity. And you see that in the mutual fund flows. So it's the indices, it's a combination of being involved in pricing deals. It's being involved -- it's in combination with companies that try to do equity deals, and bring them to us as a book runner, and then we tell them what we think they can do the deal at, and they withdraw.

So we see lots of success -- we see successful deals, as we did in the end of 2009. There was lots of bond deals that don't move ahead. We just did a transaction -- I can't tell you who it was, but wanted to bring a bond deal. And we couldn't get it done for them. A well-known Canadian company. And ultimately we ended up re-engineering and come back in with a completely different security altogether.

So the uncertainty is in the market today still, as I say, but for different reasons. And it kind of translates into the same tone. And when I say that, I'm really talking about the last part of 2009, when the proceedings were going on. Not the beginning of 2009. 2000 -- in the early 2009/late 2008, was a very unique environment. The latter half of the year, it was giddy-up, let's get these financings done in a very big way.

It was -- people were surprised at the financial institutions, the banks in particular, actually did very well in 2009, notwithstanding the crisis, because there was so much financing activity at the end of the year. Kind of last six months of 2009.

36. Mr. Engen's reference to the improvement in the capital markets over the course of 2009 is significant because the improvements had coincided with the 2009 regulatory process.

37. Mr. Engen compared the current results of various quantitative market indicators to where those indicators had stood in late September 2009; the 2009 oral hearing had taken place at the end of September-early October.⁵³ Any one indicator, on its own, is an insufficient basis from which to draw any conclusions regarding capital market conditions and the market cost of equity; however, considered together, the indicators tell a compelling story that is supportive of Mr. Engen's overall assessment. The updated graphs filed as undertakings at or following the hearing are included below with a summary of Mr. Engen's evidence on the significance of each indicator.

- **S&P/TSX Composite Bearish Tone:** Although the S&P/TSX Composite is at roughly the same level as in September 2009, at the time of the previous hearing the market had been on a bull run since March 2009. Conversely, current market levels are part of a decidedly bearish market tone as the index has been in a downward trend since April 5, 2011:

Figure 1 – S&P/TSX Composite Index 10-Year Performance

January 1, 2002 to December 17, 2012

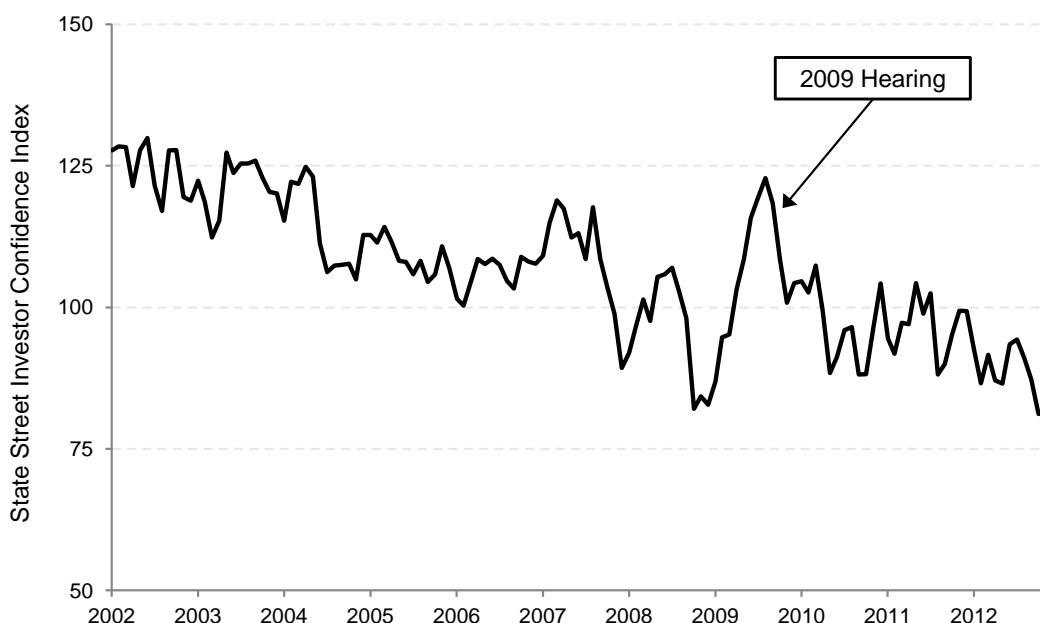


⁵³ The indicators that Mr. Engen reviewed are summarized in table format on page 9 of his written evidence (Exhibit B1-9-6, FBCU Evidence, Appendix E).

- **Lower Investor Confidence:** Investor confidence, as measured by the State Street Investor Confidence Index⁵⁴ is materially lower than in September 2009. Investor confidence stood at 118.4 for September 2009 while investor confidence level was 93.5 in June 2012 and 81.2 in November 2012. This is depicted in Mr. Engen's updated Figure 2⁵⁵:

Figure 2 – Investor Confidence

January 2002 to November 2012



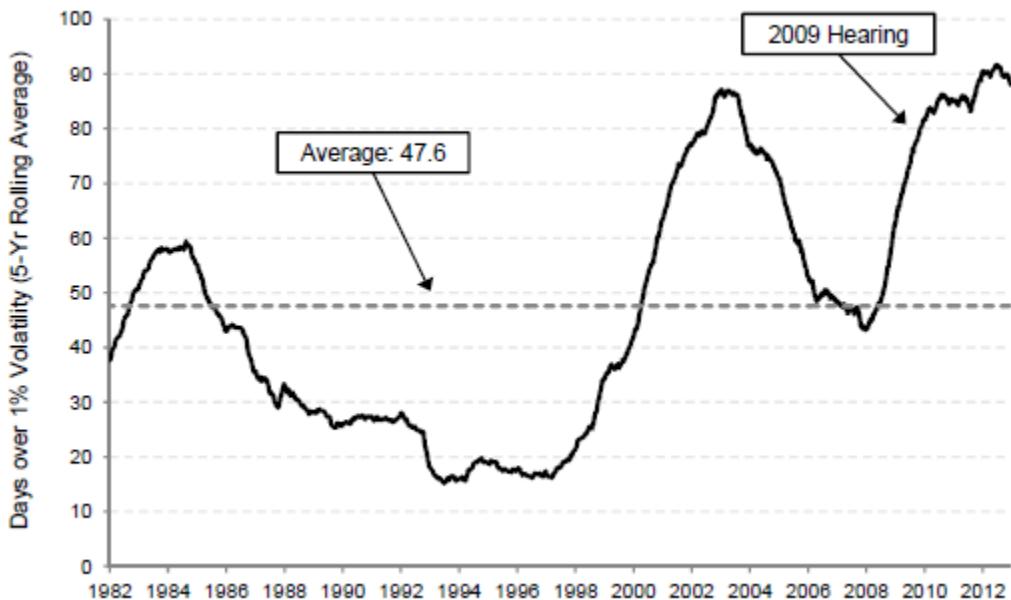
- **Increased Actual Volatility:** Actual volatility, as measured in 1% days, has increased since the time of the 2009 hearing. This is illustrated in Mr. Engen's updated Figure:⁵⁶

⁵⁴ The State Street Investor Confidence Index “measures investor confidence or risk appetite quantitatively by analyzing the actual buying and selling patterns of institutional investors.” Higher percentage allocations to equities mean higher risk appetite or confidence. The index includes global institutional activity, including that of Canadian institutional investors. Exhibit B1-9-6, FBCU Evidence, Appendix E, Engen Evidence, p. 17.

⁵⁵ Note that we have added a pointer showing the 2009 hearing, which Mr. Engen’s filed evidence had inadvertently omitted.

⁵⁶ Exhibit B1-9-6, FBCU Evidence, Appendix E, Engen Evidence, pp. 21-22, Exhibit B1-49.

Figure 3 – S&P/TSX Volatility
January 1, 1977 to December 17, 2012



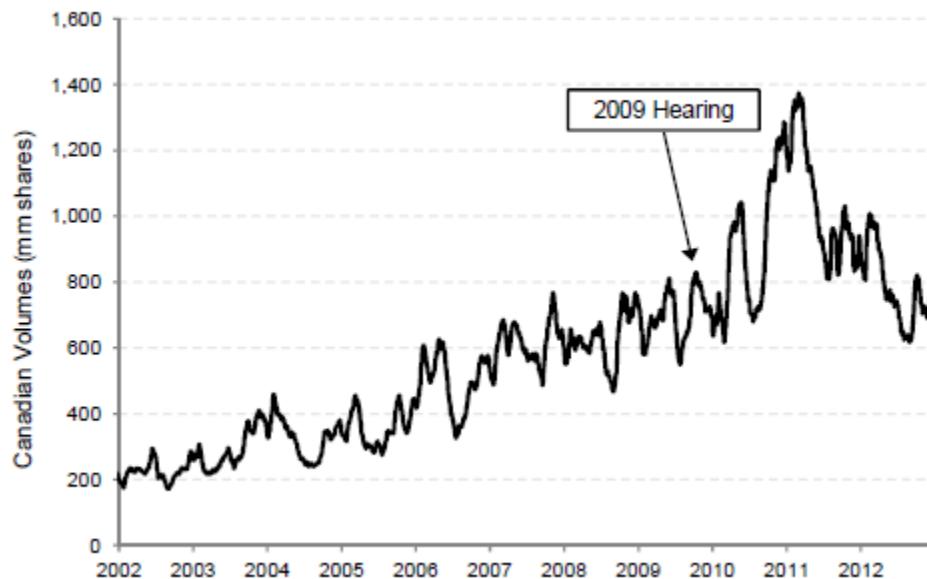
- **Lower Trading Volumes:** Liquidity in the equity market is low and has been declining over the past year. Canadian stock exchange volumes are down materially as investors increasingly remain on the sidelines waiting to see whether and to what extent current economic and financial developments will impact the market. Mr. Engen characterized these indicators as “yet another example of investor risk aversion”.⁵⁷ Mr. Engen’s updated Figure demonstrates that the volumes today are lower in absolute terms. Today’s lower market trading volumes are also occurring during a period when (unlike 2009) volumes have been on a declining, rather than rising, trajectory⁵⁸:

⁵⁷ Exhibit B1-9-6, FBCU Evidence, Appendix E, Engen Evidence, p. 22.

⁵⁸ Tr 5, 879, l. 23 – 880, l. 17 (Engen).

Figure 4 – Canadian Equity Market Trading Volumes

January 1, 2002 to December 17, 2012



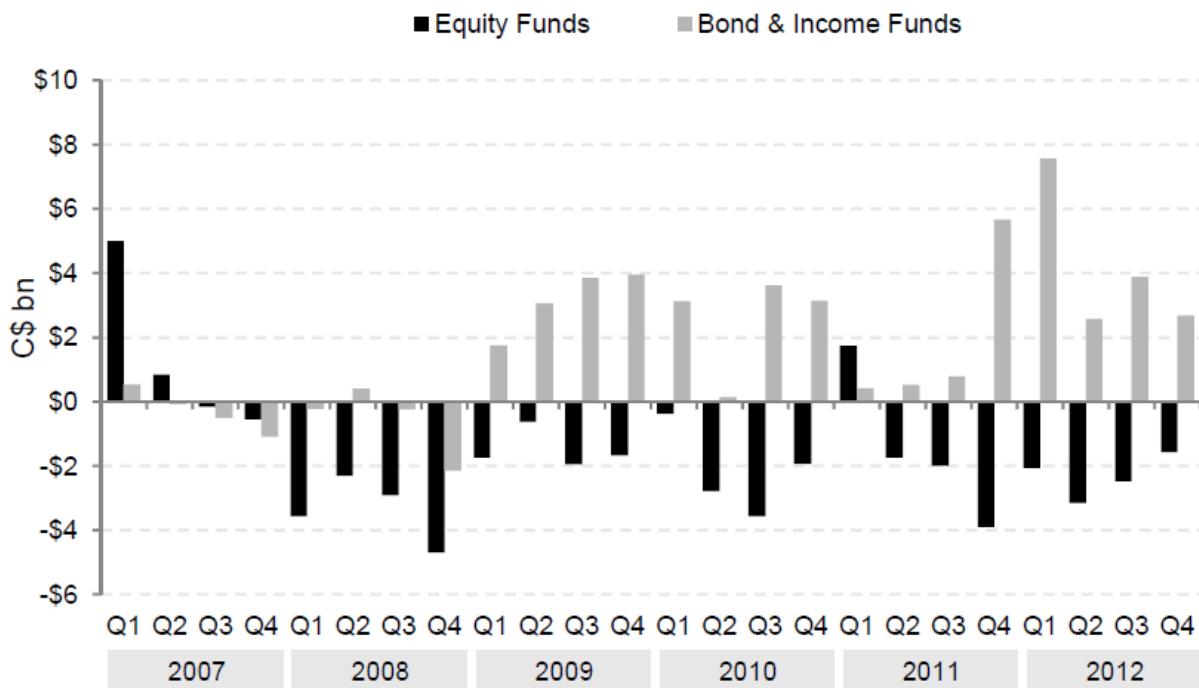
- ***Mutual Fund Funds Flows Out of Equities:*** Canadian mutual fund funds flows remain in heavily negative territory for equity funds (and have been so for the past four years), while bond and income funds have enjoyed strongly positive funds flows. Mr. Engen stated that these funds flows are illustrative of investors' cautious approach to the equity market.⁵⁹ At the time of the 2009 hearing, mutual fund equity fund flows were aggregated -\$9.0 billion (outflows) for the preceding 12-month period. Equity fund flows have worsened and amounted to - \$10.6 billion (outflows) for the 12-month period leading to November 2012.⁶⁰

⁵⁹ Exhibit B1-9-6, FBCU Evidence, Appendix E, Engen Evidence, p. 23.

⁶⁰ Exhibit B1-49-1.

Figure 5 – Quarterly Mutual Fund Flows

January 2007 to November 2012



- **Lower P/E Ratio:** The S&P/TSX's P/E ratio averaged 17.2x in September 2009, whereas in the month leading up to December 17, 2012 the ratio averaged the materially lower level of 15.1x. Mr. Engen observed that a lower P/E ratio means the market is paying less for each dollar of income, i.e. each dollar of income is less valuable or less expensive. All else equal, it indicates a higher market cost of equity environment. Also, today's lower P/E ratio comes during a period where the ratio has been in decline, which is a sharp contrast to the rising ratio environment at the time of the 2009 hearing. This is illustrated in Mr. Engen's updated Figure:

Figure 6 – S&P/TSX Composite Index Historical P/E Ratio

January 2002 to December 2012



Mr. Engen explained in IR responses and during the hearing that the higher utility sector P/E multiples experienced recently is largely a product of Enbridge's unique 50x multiple skewing the overall average. It does not suggest a lower cost of utility equity generally.⁶¹

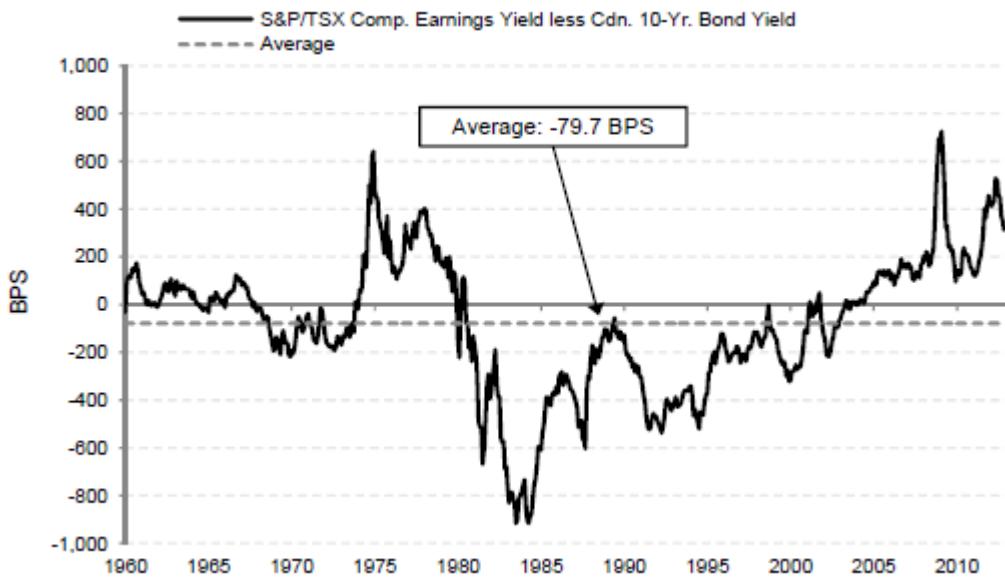
- ***Higher Earnings Yield / Government of Canada Bond Yield Spread:*** Mr. Engen stated that the Earnings/Bond Yield Spread is one measure that the market considers as an indication of whether the market cost of equity is rising or falling. The return to highs not seen since the 2008 crisis (illustrated in Mr. Engen's updated Figure) is suggestive of a rising market cost of equity. Mr. Engen concluded that this high Earnings/Bond Yield Spread has been a function of falling Government of Canada bond yields combined with falling equity valuations (resulting in increasingly higher earnings yields).⁶²

⁶¹ Exhibit B1-20, BCUC-FBCU (Engen) IR 1. 19.2 and 1.19.3 and Tr 6, 928, l. 5 – 929, l. 17 (Engen).

⁶² Exhibit B1-9-6, FBCU Evidence, Appendix E, Engen Evidence, pp. 28-29.

Figure 7 – Earnings Yield – Gov’t Canada Bond Yield Spread

1960 to December 2012



Mr. Engen reaffirmed at the hearing that the trend of increasing spreads represented a change in investors' appetite for risk:⁶³

If investors' view of the risk or the credit risk was that or there was no change in the appetite [sic-for] risk, a one basis drop in government of Canada yields would correspond to a one basis point drop in a corporate spread. In other words, there has been no change in the view of risk.

But that's not been the case. As government of Canada yields have continued to fall, the spread between that and what investors are requiring to hold corporate bonds has been widening out. So that's one piece of the evidence of course we look at. And the second one, frankly, is direct conversations with institutional investors across Canada and North America. I was just in San Francisco, New York and frankly here in Vancouver, the last two weeks, meeting with institutional investors, talking about this very issue. And saying that they are as investors very concerned about risk profiles across North America and resisting following the fall in Government of Canada Bonds and pushing out those spreads.

⁶³ Tr 5, 851, l. 23 – 852, l. 18 (Engen).

Mr. Wallace pointed to the lower coupons for utility debt issues in 2012, compared to late 2009. Mr. Engen explained that the relevant consideration was the spread, rather than the coupon for utility debt issues, and the greater spread indicates that investors are seeking compensation for increased risk compared to late 2009.⁶⁴

- ***Investor Sentiment Regarding Anticipated Volatility:*** The VIXC and the VIX, indicators of investor sentiment regarding anticipated volatility in the Canadian⁶⁵ and U.S.⁶⁶ equity markets respectively, are the only indicators among the 12 indicators referenced by Mr. Engen that suggest some improvement in the equity markets relative to Fall 2009. The VIXC averaged 21.2 in October 2009. It had improved somewhat to 15.65 during the month ending December 17, 2012.⁶⁷ The VIX averaged 25 in September 2009 and 15.94 in the month ending December 17, 2012.⁶⁸ The improvement in the VIX and VIXC alone does not detract from the overall picture of “challenging and volatile” equity market conditions.⁶⁹

38. The equity market conditions that Mr. Engen described translate into a higher market cost of equity compared to Fall 2009. BC utilities must be in a position to compete for capital in a market characterized by risk averse equity investors who are moving capital from equity into bonds. Mr. Engen concluded that “Canadian current and prospective capital market conditions, market required returns on capital for energy infrastructure assets, and opportunities for investments of comparable risk at attractive rates of return in Canada, the U.S. and elsewhere”, all support FEI’s proposed ROE and capital structure.⁷⁰ Mr. Engen was

⁶⁴ Tr 5, 856, II. 10-15 (Engen).

⁶⁵ Exhibit B1-9-6, FBCU Evidence, Appendix E, Engen Evidence, p. 18. Exhibit B1-20, BCUC-FBCU (McShane) IR 1.39.1.

⁶⁶ Exhibit B1-9-6, FBCU Evidence, Appendix E, Engen Evidence, p. 19.

⁶⁷ Exhibit B1-49, p. 6.

⁶⁸ Exhibit B1-9-6, FBCU Evidence, Appendix E, Engen Evidence, p. 20 and Exhibit B1-49-1.

⁶⁹ Exhibit B1-9-6, FBCU Evidence, Appendix E, Engen Evidence, p. 8.

⁷⁰ Exhibit B1-9-6, FBCU Evidence, Appendix E, Engen Evidence, pp. 67-68.

careful to qualify that he was not saying that anything more or less than FEI's proposed ROE and capital structure would be viewed as unfair by the market.⁷¹

39. Mr. Engen described the expected returns of private equity and Canadian pension funds on direct investments in energy infrastructure (as differentiated from holding publicly traded shares)⁷² as "back-checks". Private equity expected returns on direct investments in energy infrastructure assets (including pipelines) are "in the order of a minimum of 15% to 20%". Canadian pension funds expect returns on direct investments "in the order of a minimum of 7.5% to 8.5% with returns on equity in the range of 10.0% to 12.0%."⁷³

40. Mr. Engen's evidence on private equity and pension fund direct investments also illustrates how investors look at the returns for individual investments in energy infrastructure assets differently than if they are assessing a return on a portfolio of shares. This is of relevance in the context of the CAPM because (as discussed later) the CAPM is focussed on diversifiable risk in a portfolio. FEI – the entity for which the Commission is fixing rates – is making direct investments in a single energy infrastructure asset (i.e. the distribution system), assuming risks that cannot be readily diversified because of the regulatory constructs in which public utilities operate.

41. The FBCU submit that Mr. Engen has provided a valuable market perspective on the current state of the capital markets and the market cost of capital. His evidence on the increased market cost of equity is supported by a variety of objective market indicators, and is consistent with Ms. McShane's evidence (discussed next). The Commission should give significant weight to Mr. Engen's evidence.

⁷¹ Tr 6, 908, l. 19 – 909, l. 10 (Engen).

⁷² Exhibit B1-24, BCUC-FBCU (Engen) IR 2.163.2 and 2.163.3.

⁷³ Exhibit B1-9-6, FBCU Evidence, Appendix E, Engen Evidence, pp. 64-65; Exhibit B1-20, BCUC-FBCU (Engen) IR 1.29.1, 1.31.2 and 1.31.3; Exhibit B1-26, BCPSO-FBCU (Engen) IR 2.2.3 and 2.2.4.

(b) Ms. McShane's Evidence is Consistent With Mr. Engen's Evidence

42. Ms. McShane's capital markets evidence appears on pages 17 to 34 of her written evidence. Ms. McShane, like Mr. Engen, provided a broad description of the circumstances in Fall 2009 and set out the results of a number of quantitative market indicators as at Fall 2009. She used the information as a basis for comparing the circumstances today and arrived at a similar conclusion to Mr. Engen.

43. Ms. McShane encapsulated the conditions in Fall 2009 as follows: "...recovery from the global financial crisis was underway. Governments world-wide had already begun to take extraordinary steps, using both monetary and fiscal policy tools, to stabilize the capital market and real economies."⁷⁴

44. Ms. McShane summarized the Bank of Canada bi-annual Financial System Reviews over the next three years. She recounted how the shift in investor sentiment over the course of 2011 had reflected a number of developments including (i) declines in equity market prices in reaction to increasing uncertainty over the strength of the global recovery, (ii) some deterioration in credit markets, (iii) a sharp reduction in bond issuance, and (iv) shifting of capital into perceived safe haven assets and currencies, putting downward pressure on government bond yields in major advanced economies.⁷⁵ The 2012 Bank of Canada Financial System Reviews continued to identify market risks of this nature.

45. Ms. McShane described how yields on high yield bonds, which have both debt and equity characteristics, were 8.4% at the end of June 2012, slightly higher than their 8.2% end of September 2009 level. The dividend yields on the S&P/TSX Composite and the S&P/TSX 60 were higher at the end of June 2012 than at the end of September 2009. The earnings/price ratios on both the indices, which provide a rough guide as to the trend in the market cost of equity, were higher in June 2012 than in September 2009, indicating an increase in the market cost of equity. With Government of Canada bond yields having declined significantly between

⁷⁴ Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, pp. 18-19.

⁷⁵ Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, pp. 24-25.

late 2009 and mid-2012, the corresponding implication is that the equity market risk premium was higher at the end of June 2012 than it was in late 2009.⁷⁶

46. Ms. McShane's overall assessment was that the market cost of equity is higher in 2012 than it had been at the end of September 2009: "A comparison of equity market indicators points to a higher market cost of equity in mid-2012 versus at the end of the oral portion of the 2009 Application, and, due to the decline in long-term Government of Canada bond yields, an even higher equity market risk premium."⁷⁷ Ms. McShane updated her charts and tables relating to her market evidence at the hearing and filed the December 2012 Government of Canada Financial Conditions Report.⁷⁸ The updated information confirmed her initial assessment.

B. DR. BOOTH'S EVIDENCE ON CAPITAL MARKET CONDITIONS

47. Dr. Booth painted an overly simplistic picture of current capital market conditions and how they compare with the conditions that had existed during the 2009 proceeding. He:

- glossed over the fact that capital market conditions had improved from the depth of the financial crisis by the time the 2009 hearing had concluded; and
- sought to reduce the complexities of the current financial market conditions to a sound bite from the Governor of the Bank of Canada ("firing on all cylinders"), downplaying the more challenging aspects of current conditions identified by the Bank of Canada and others.

⁷⁶ Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, pp. 31-32.

⁷⁷ Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, pp. 31-32.

⁷⁸ Exhibit B1-56 (Undertaking 17). The December 2012 Bank of Canada Financial System Review is discussed further below.

(a) Capital Market Conditions Had Improved During the Course of 2009

48. Dr. Booth, in his written evidence on how capital market conditions have changed since the last cost of capital proceeding, was inclined at times to generalize about the capital market conditions in 2009 without consistently drawing the necessary distinction between the extreme conditions in the early part of 2009 and the conditions at the time of the 2009 hearing.⁷⁹ In his opening statement, Dr. Booth articulated why he was taking this approach: “The company and its witnesses stress that the hearing was in late 2009, but the bulk of the evidentiary record was put together at a period of real financial crisis and the memory of this was very much upper most in people’s minds.”⁸⁰ The FBCU submit that the Commission in 2009 had been made well aware that capital market conditions had improved from their nadir.

49. At this GCOC proceeding, counsel for the FBCU presented to Dr. Booth excerpts of the 2009 evidence on capital market conditions. Dr. Booth’s August 2009 testimony had described the Canadian economy as having “bottomed out from a short but deep recession” and as being in “full recovery mode”:

The Canadian economy has now moved into recovery mode, dividend yields on the TSX have dropped by over 1.0% as the TSX has itself rebounded by over 40% since its March lows and spreads on “A” bonds over equivalent maturity LTC bonds have more than halved. Further long term Canada bond yields have recovered and I expect them to increase to 4.5% in 2010. If there ever was any case for changing the ROE adjustment mechanism that case has now collapsed.⁸¹

Dr. Booth conceded during cross-examination: “In 2009, I was before this Commission basically saying, “Well, we’re through the worst.” Wipe my brow. And we’ve recovered. The Canadian economy has recovered. The capital markets are recovered. I think we can go back to

⁷⁹ E.g. “it clear is that capital market conditions today are much easier than in 2009” (Exhibit C6-12, AMPC Evidence, Booth Evidence, p. 67); “Capital market conditions are much improved from 2009” (Exhibit C6-12, AMPC Evidence, Booth Evidence, p. 43).

⁸⁰ Exhibit C6-22.

⁸¹ Exhibit B1-51, p. 3.

normal.”⁸² Dr. Booth acknowledged that the Commission had been aware in 2009 that the financial markets and economy had improved towards the end of 2009.⁸³

(b) Dr. Booth’s Sound-Bite: “Firing On All Cylinders”

50. Dr. Booth referenced in the introduction to his written evidence, and repeated in his opening statement, a July 2012 quotation attributed to Mr. Carney (formerly) of the Bank of Canada to the effect that Canada’s financial system is “firing on all cylinders”. The quotation makes for a good “sound-bite” for Dr. Booth, but both Mr. Carney and the Bank of Canada have been more measured in their characterization of the current capital market conditions. Consistent with the evidence of Ms. McShane and Mr. Engen, the Bank of Canada and Mr. Carney have identified encouraging signs in the markets, as well as significant risks.

The Reality Behind the Sound-Bite

51. Mr. Carney’s more balanced view of the state of Canada’s capital markets is evident in the very July 2012 article, from which Dr. Booth extracted Mr. Carney’s “firing on all cylinders” quote. The article, which Dr. Booth produced in response to an information request, contained an entire section devoted to Mr. Carney’s view that the world remained “a very dangerous place”.⁸⁴ This important reservation was not referenced at all by Dr. Booth.

52. Ms. McShane’s written evidence referenced the Bank of Canada’s bi-annual published assessments of financial conditions.⁸⁵ The latest report from the Bank of Canada, dated December 2012, noted improvements while expressing the same reservation evident in Mr. Carney’s July 2012 comments that the overall level of risk to the financial system remains high. The report observed that “[c]onditions in the international financial system remain challenging” and that though “Canada’s financial system continues to be robust”, it “continues to be vulnerable to a number of interrelated and mutually reinforcing risks.” The Bank of

⁸² Tr 8, 1520, ll. 19-22 (Booth). See also: Tr 7, 1397, ll. 8-23 (Booth).

⁸³ Tr 7, 1397, ll. 8-23 (Booth).

⁸⁴ Exhibit C6-16, FBCU-AMPC/BC Utility Customers (Booth) IR 1.1.

⁸⁵ Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, p. 21, l. 534 to p. 29, l. 734.

Canada summarized the sources of key risks as of December 2012 in a table, reproduced below, with the conclusion being that the overall level of risk is “high” and unchanged from the prior bi-annual report dated June 2012.⁸⁶ In fact, in the Bank of Canada’s assessment, the level of risk to the global economy and financial system rose in each of its six-month reviews between December 2009 and December 2011 and has been unchanged since.⁸⁷

Figure 8 – Table of Key Risks from December 2012 Bank of Canada Financial System Review

Table 1: Key risks to the stability of the Canadian financial system

| | |
|---|---|
| Euro-area crisis | ↔ |
| Deficient global demand ^a | |
| Canadian household finances and the housing market | ↔ |
| Low interest rate environment in major advanced economies | ↔ |
| Overall level of risk | ↔ |

a. Since this risk has been redefined, it is not comparable to the assessment in the June FSR.

Legend

| Level of risk | Direction of risk (change since June FSR) |
|---------------|---|
| Very high | ↑ Increased |
| High | ↔ Unchanged |
| Elevated | ↓ Decreased |
| Moderate | |

53. The risk to Canada’s financial system is underscored by the very recent (post-dating the December 2012 Bank of Canada report) credit rating downgrading of six financial Canadian financial institutions, including Scotiabank and National Bank.⁸⁸ Although Dr. Booth sought to downplay this development at the hearing by suggesting that all but Scotiabank were second rate financial institutions,⁸⁹ it is self-evident that a downgrade of one of Canada’s

⁸⁶ Exhibit B1-50, pp. 101-102.

⁸⁷ Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, p. 29, ll. 730 to 734.

⁸⁸ Tr 8, 1526, ll. 12-20 (Booth).

⁸⁹ Tr 8, 1526, ll. 12-25 (Booth).

largest banks is a significant event, let alone when coupled with downgrades of five other respected financial institutions.

Bank of Canada Financial Condition Index

54. Dr. Booth, in his written evidence, had bolstered his contention that Canadian capital markets had fully recovered with the results of the Bank of Canada Financial Condition Index.⁹⁰ The FBCU submit that the Index is not a substitute for Mr. Engen's analysis and the commentary in the Bank of Canada's bi-annual reports encapsulated by Ms. McShane. It should also be considered in light of what data it is presenting.⁹¹ In any event, the Index results deteriorated after Dr. Booth filed his written evidence. The updated Bank of Canada Financial Conditions Index results from November 16, 2012 compare unfavourably to the Index results at the time of the 2009 oral hearing. Moreover, since the 2009 proceeding, the index has demonstrated significant volatility.⁹² After some prodding, Dr. Booth conceded at the hearing that he still relies upon the Financial Conditions Index, believing that it is a good indicator for the Canadian financial markets.⁹³

C. SIGNIFICANCE OF DECLINE IN GOVERNMENT OF CANADA BOND YIELDS

55. There is consensus among all of the experts that the recent downward trend in long-term Government of Canada bond yields does not suggest a lower market cost of equity:

- Ms. McShane identified a change in the historic relationship between Canadian utility dividend yields (which represent a significant component of the cost of equity) and long-term Government of Canada bond yields. She determined

⁹⁰ Exhibit C6-12, AMPC Evidence, Booth Evidence, p. 65.

⁹¹ Exhibit B1-32, FBCU Rebuttal Evidence, Engen Rebuttal Evidence, pp. 4-5. The Bank of Canada describes its Financial Conditions Index as follows: "A Financial Conditions Index (FCI) is a weighted average of financial variables. The weights are determined using regression analysis according to the impact of a given variable on economic activity. Downward movements in the FCI capture tighter financial conditions, which are therefore consistent with weaker economic activity; upward movements represent improving financial conditions, which would be consistent with stronger economic activity."

⁹² Exhibit B1-32, FBCU Rebuttal Evidence, Engen Rebuttal Evidence, pp. 4 to 5.

⁹³ Tr 8, 1530, l. 25 – 1531, l. 7 (Booth).

that⁹⁴ “the abnormally low level of recent and forecast long-term Government of Canada bond yields needs to be taken into account in the assessment of what constitutes an appropriate equity risk premium.”

- Mr. Engen emphasized that “Some of the factors pushing Government of Canada bond yields to currently very low levels are the very same factors which would tend to put upward pressure on the cost of equity.”⁹⁵ The observed disconnect between Government of Canada bond yields and the cost of equity was instrumental in the Commission’s 2009 Decision to eliminate the AAM tied to long-term government bond yields.⁹⁶
- Dr. Vander Weide characterized the current low interest rates as “unusual”, the product of monetary policies.⁹⁷
- Mr. Coyne expressed the view that bond yields have deviated from equity returns in recent years.⁹⁸ He added:

During the financial crisis and economic recession, credit spreads widened significantly and equity market volatility rose to unprecedented levels, ultimately causing government bond yields and corporate capital costs to move opposite to one another despite a historical positive relationship. Neither bond yield (government or corporate) provides a complete picture of required equity returns.⁹⁹

- Dr. Booth similarly stated,¹⁰⁰ for instance:

⁹⁴ Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, p. 33, ll. 823-826; see also p. 31.

⁹⁵ Exhibit B1-9-6, FBCU Evidence, Appendix E, Engen Evidence, p. 9; see also pp. 40-41.

⁹⁶ 2009 Decision, p. 73.

⁹⁷ Exhibit B1-9-6, FBCU Evidence, Appendix G, Vander Weide Evidence, p. 43.

⁹⁸ Exhibit B1-9-6, FBCU Evidence, Appendix I, Coyne Evidence, p. 9.

⁹⁹ Exhibit B1-9-6, FBCU Evidence, Appendix I, Coyne Evidence, p. 10; see also: Exhibit B1-32, FBCU Rebuttal Evidence, Coyne Rebuttal Evidence, p. 1; Tr. 5, 825, ll. 19-22 (Coyne).

¹⁰⁰ Tr 8, 1516, ll. 8-16 (Booth); see also Exhibit C6-12, AMPC Evidence, Booth Evidence, p. 57 and Tr 8, 1515, ll. 5-11 (Booth).

I mean, we do have foreign official flows of money coming into Canada because we are a triple A rate country and they are basically buying Canadian government bonds, pushing up prices, pushing down yields, and pushing them down to a value that I do not think reflects the proper trade-off between risk and return by “an ordinary private investor” making these decisions. It reflects the global policy maker.

Dr. Booth attempted to reflect the current disconnect between government bond yields and the market cost of equity in the form of an Operation Twist adjustment in his CAPM calculations,¹⁰¹ and also in the “floor” he employs in his AAM proposal.

- Dr. Safir stated:¹⁰² “...you have to adjust during this period for the aberrant impact on the models of operation twist and the fact that you have artificially low long-term rates because of that, which do not comport with what would be a long-term go-ahead cost of capital in a normal market.” He added: “But here, you have an extraordinary amount of intervention, you know. Poor Milton Friedman would be rolling in his grave to see what’s going on now with respect to monetary policy.”¹⁰³

D. SUMMARY REGARDING CURRENT MARKET CONDITIONS

56. The Commission should use the improved financial market conditions in Fall 2009 as the reference point for comparing the current financial market conditions, not the dark days of Spring 2009 that colour Dr. Booth’s evidence. The 2009 Decision had reflected the improvement over the course of the 2009 proceeding. Today, there are positive signs in the Canadian capital markets, but there are also risks that are not adequately encapsulated by Dr. Booth’s favoured phrase “firing on all cylinders”. Mr. Engen’s and Ms. McShane’s thorough and balanced assessments of market tone are supported by the objective indicators cited by Mr. Engen, the Bank of Canada Financial Conditions Index, and the Bank of Canada bi-annual

¹⁰¹ See for example: Tr 8, 1545, l. 19 – 1546, l. 20 (Booth) and Tr 8, 1490, ll. 3-7 (Booth).

¹⁰² Tr 7, 1187, l. 23 – 1188, l. 4 (Safir).

¹⁰³ Tr 7, 1188, ll. 12-15 (Safir).

reports. The Commission should give substantial weight to the evidence of Mr. Engen and Ms. McShane and find that (i) the Canadian capital market conditions are broadly similar to where they stood in Fall 2009, albeit for different reasons; and (ii) the market cost of equity has increased since Fall 2009.

PART FOUR: SHORT-TERM BUSINESS RISK REMAINS ESSENTIALLY THE SAME AS 2009

57. The application of the Fair Return Standard to FEI must account, not only for the current volatility and uncertainty in equity markets and the higher market cost of equity, but also the risk that FEI faces in achieving its expected return on and of its invested capital. The company-specific risks inform FEI's cost of capital. The Commission stated in the 2009 Decision that "[t]he assessment of risks has significant bearing on the application of the fair return standard and the determination of an appropriate common equity ratio for regulatory purposes."¹⁰⁴

58. The Commission accepted in 2009 that FEI's business risk has long-term and short-term aspects. Short-term risk relates to FEI's ability to earn a fair return on its investments from year to year. Longer-term risk relates to whether or not the utility will be able to recover its invested capital over the useful life of the assets and earn a fair return on the investment over the long run.¹⁰⁵ In this Part, the FBCU address the short-term business risks associated with FEI earning its allowed return in a given year. The FBCU make the following points below:

- (a) Short-term risk is inherent in rate setting based on a forward test year;
- (b) FEI's track record of generally being able to earn its allowed ROE had been before the Commission in previous proceedings, and does not suggest any change in FEI's short-term risk; and

¹⁰⁴ 2009 Decision, p. 17.

¹⁰⁵ 2009 Decision, p. 19.

(c) FEI's deferral accounts provide essentially the same degree of protection against earnings volatility as they did in 2009, meaning that FEI's ability to earn its allowed return in a given test year is subject to similar risks as in past years.

A. THE NATURE OF SHORT-TERM RISK

59. Dr. Booth and Ms. McShane agree that the short-term risk facing a regulated public utility is the risk of not earning its allowed ROE, rather than the risk of experiencing a net loss.¹⁰⁶ The risk arises because of the way rates are set. In each test period, the Commission sets rates based on forecast costs and throughput, and the utility faces short-term risk in implementing the activities required to provide services to customers within its approved revenue requirements.¹⁰⁷ Mr. Dall'Antonia put it this way:

The risks at the start of any test year going forward is the same. We have a revenue requirement that's approved, and we manage within it, and we do a good job of managing. And that's, you know, partly a function of our experience and being sound managers. And that's not too different than most utilities, especially our comparators.¹⁰⁸

60. FEI and many other utilities mitigate their short-term risk by using deferral accounts and careful management. FEI and other utilities tend to achieve their allowed ROE. As Ms. McShane testified, well run gas utilities can be expected to make every effort to manage their affairs and earn a return that is close to the allowed return in the near term.¹⁰⁹ However, short-term risk cannot be eliminated while rates are set based on a forward test year and there remain "at risk" items in the utility's forecast revenue requirement.

61. There are, and have always been, significant portions of FEI's revenue requirement "at risk". The issue for this proceeding as it relates to FEI's short-term risk is whether or not FEI's short-term risk has changed since the close of the 2009 proceeding such that a different overall return now better meets the Fair Return Standard. The answer, which is

¹⁰⁶ Tr 3, 440, l. 9 – 441, l.8 (McShane); Tr 8, 1463, ll. 12-24 (Booth).

¹⁰⁷ Exhibit B1-24, BCUC-FBCU IR 2.182.7.

¹⁰⁸ Tr 3, 344, ll. 2-8 (Dall'Antonia).

¹⁰⁹ Tr 3, 442, l. 22 – 443, l. 3 (McShane).

addressed in the next two sections, is that the short-term risk facing FEI has remained essentially the same. Even Dr. Booth agrees with this assessment.¹¹⁰ Dr. Safir provided no assessment of FEI's short-term risk.

B. FEI'S TRACK RECORD OF GENERALLY ACHIEVING ALLOWED RETURN

62. Dr. Booth placed significant reliance on FEI's track record of generally being able to earn its allowed ROE, as well as the similar experience of other Canadian utilities, as a basis for his ROE recommendation for FEI. He characterized FEI's ability to generally achieve its allowed return as being demonstrative of FEI having "no material short-run risk, or the risk of return on capital."¹¹¹ The relative consistency of utility sector earnings tends to suggest lower short-term risk than for non-regulated companies, but is not synonymous with an absence of short-term risk. That aside, the full answer to Dr. Booth's argument is:

- First, Dr. Booth conceded that FEI's ability to earn its allowed ROE in the short-run has not changed "in the slightest" since 2009.¹¹²
- Second, intervenors had advanced this same argument in 2005 and 2009.¹¹³ Dr. Booth's evidence in 2009 had included a comparison of allowed returns with achieved returns for FEI and other utilities dating back at least 15 years. The Commission had referred to FEI's track record in its 2009 Decision.¹¹⁴ The differences between the information that had been available to the Commission in 2009 and what Dr. Booth included in his current testimony are immaterial and do not change the overall assessment of short-term risk.¹¹⁵

¹¹⁰ Tr 8, 1475, ll. 19-21 (Booth).

¹¹¹ Tr 8, 1464, ll. 2-16 (Booth).

¹¹² Tr 8, 1475, ll. 19-21 (Booth).

¹¹³ 2006 Decision, p. 23; 2009 Decision, p. 27.

¹¹⁴ 2009 Decision, p. 27.

¹¹⁵ The only differences are that Dr. Booth has now dropped data from 1992 and 1993, and added newer data from 2009, 2010 and 2011. In 1992, FEI underearned its allowed ROE by 319 basis points (allowed 12.25%, achieved 9.06%). FEI achieved its ROE in 2009 and 2011 and fell slightly below it in 2010.

63. While the consistency of FEI's track record since before the last two cost of capital proceedings is a full answer to Dr. Booth's evidence on short-term risk, it is important to make a further comment about how Dr. Booth has compared allowed to achieved returns. There are three reasons why the Commission should exercise caution in assessing FEI's past financial performance, extrapolating from it, or comparing it to other utilities based on the graphs and data set out in Dr. Booth's written evidence.

- First, the data set used by Dr. Booth is largely from years in which a PBR was in place for FEI.¹¹⁶ During the PBR period, O&M and capital were set through a formula, not based on forecast spending. The PBR formula approach was designed to result in savings to be shared with customers, primarily from the operational consolidation of three separate utilities. The Commission-approved framework expressly anticipated earnings that were above the allowed ROE.¹¹⁷ When the periods under PBR are excluded, the variances between FEI's achieved return and allowed ROE from 1994 to 2011 were not that significant.¹¹⁸
- Second, Dr. Booth has graphed the data from the PBR period on a pre-sharing, rather than post-sharing basis. This significantly overstates FEI's financial performance during those years. Dr. Booth's insistence that it is more appropriate to view FEI's earnings during PBR on a pre-sharing basis is a new development; he had presented the data on a post-sharing basis in the 2009 proceeding.¹¹⁹
- Third, although other utilities whose track records Dr. Booth assessed and compared to that of FEI were also under PBR, Dr. Booth did not present the results in a consistent manner. FEI's results are shown on a pre-sharing basis, which is not the case for all of the utilities for which he presents data. This

¹¹⁶ The same is true for all of the other utilities that Dr. Booth identifies in his Evidence.

¹¹⁷ Exhibit B1-20, BCUC-FBCU IR 1.95.1.1

¹¹⁸ Exhibit B1-20, BCUC-FBCU IR 1.96.1.1.

¹¹⁹ Exhibit B1-50, p. 34, Footnote 7.

approach tends to distort comparisons among utilities by making FEI's financial results under PBR look more impressive relative to other utilities under PBR. While FEI had strong financial results in some PBR years even after sharing, FEI has also experienced the most years of under-earning since 1994 relative to the other utilities presented by Dr. Booth.

C. DEFERRAL ACCOUNT COVERAGE ESSENTIALLY THE SAME AS 2009

64. As discussed below, FEI's current deferral accounts provide essentially the same degree of protection against earnings volatility and under-earning as they did in 2009. On a go-forward basis, FEI's forecast risk at the outset of a given test year is similar to what it had been in 2009 because the tools available to manage forecast variances are similar. While the FBCU submit that 2009 is the relevant point of comparison, not 2000 as Dr. Booth suggested, the evidence also demonstrates that the extent of deferral account coverage is not significantly greater today than it had been 12 years ago.

(a) Counting the Number of Deferral Accounts vs. Assessing Coverage

65. Dr. Booth made a point of noting in his written evidence the increase in the number of FEI's deferral accounts since 2000 (from 13¹²⁰ in 2000 to 24 today).¹²¹ The increase in the number of accounts may sound material, but simply counting the number of accounts misses the point. Only some deferral accounts have the effect of helping to manage earnings volatility. (No deferral accounts are specifically set up for that purpose, but reduced earnings volatility is a side-effect of accounts designed to ensure that neither the shareholder, nor customers obtain a windfall from forecast variances for costs.) Moreover, FEI's ability to manage short-term risk with deferral accounts is a function of the portion of the overall revenue requirement covered by deferrals, irrespective of the number of accounts providing that coverage. Dr. Booth acknowledged at the hearing that it is essential to look at both the

¹²⁰ Number corrected in Exhibit B1-32.

¹²¹ Exhibit C6-12, AMPC Evidence, Booth Evidence, p. 28.

nature of the account and the scope of its coverage rather than just counting the number of accounts.¹²²

(b) Deferral Account Coverage Comparison to 2009

66. Dr. Booth was correct to concede that FEI's ability to earn its allowed ROE in the short-run has not changed "in the slightest" since 2009, as the collective scope of deferrals that affect earnings volatility has not changed in any material way since 2009.¹²³

67. The FBCU's Rebuttal Evidence presented in table format FEI's major deferral accounts that have existed since 2000, and indicated whether they had existed in 2000, 2005 and 2009.¹²⁴ All but two of the accounts identified as being new since 2009 represent a re-categorization of rate base from Net Plant in Service to rate base deferrals, necessitated by FEI's adoption of new accounting standards. Re-categorizing rate base in this fashion has no material effect on earnings, since the rate base deferrals earn the same rate of return and the balances are simply amortized instead of being recorded in depreciation.

68. As for the other two new accounts:

- The Customer Service Variance Account is temporary. It is intended to address only the stabilization period for FEI's new customer care processes.¹²⁵
- The Depreciation Variance Account captures variances in depreciation estimates associated with, for example, differences in timing of assets going into service during the year. It was put in place at the direction of the Commission for the current test period.¹²⁶ It may or may not exist beyond the current test period. Either way, variances in forecast additions and retirements in a year are going to

¹²² Tr 4, 626, ll. 2-5 (McShane); Dr. Booth also agreed on this point: Tr 8, 1474, ll. 8-14 (Booth).

¹²³ Tr 8, 1475, ll. 19-21 (Booth).

¹²⁴ Exhibit B1-32, FBCU Rebuttal Evidence, Company Rebuttal Evidence, p. 6.

¹²⁵ Exhibit B1-32, FBCU Rebuttal Evidence, Company Rebuttal Evidence, p. 5.

¹²⁶ *In the Matter of the FortisBC Energy Utilities [comprised of FortisBC Energy Inc., FortisBC Energy Inc. Fort Nelson Service Area, FortisBC Energy (Vancouver Island) Inc. and FortisBC Energy (Whistler) Inc.] 2012-2013 Revenue Requirements and Rates Decision*, Order No. G-44-12, April 12, 2012, p. 81.

be small relative to the total rate base, and the impact of those variances on depreciation expense is going to be even smaller. Dr. Booth characterized depreciation expense as “entirely predictable”, making the existence or non-existence of a deferral account to capture depreciation variances immaterial to FEI’s short-term risk.¹²⁷

69. The FBCU’s evidence on deferral accounts filed in response to the Minimum Filing Requirements demonstrates that the percentage of FEI’s revenue requirements covered by deferrals has decreased in terms of actual results and deferral accounts have resulted in a credit to customers.¹²⁸

(c) Deferral Account Coverage Comparison to 2000

70. Using the year 2000 as the point of comparison on deferral account coverage, as Dr. Booth does,¹²⁹ makes little sense. There have been two intervening cost of capital proceedings, in which the Commission assessed FEI’s short-term business risk including deferral accounts.¹³⁰ In any event, the differences in deferral account coverage over the previous 12 years are not material:

- Gas costs, which are the largest portion of FEI’s costs, have been covered by deferrals since before 2000. This is a typical regulatory construct for gas utilities. The only change that has occurred since 2000 with respect to coverage of gas costs is that the same costs are now covered by three accounts instead of one.¹³¹
- The Commission had explicitly recognized in the 2006 Decision that gas costs

¹²⁷ Exhibit C6-12, AMPC Evidence, Booth Evidence, p. 6.

¹²⁸ Exhibit B1-9-5, FBCU Evidence, Appendix A, Section 8 - Historical Regulatory Financial Information (electronic document).

¹²⁹ Exhibit C6-12, AMPC Evidence, Booth Evidence, p. 28, ll. 12-14.

¹³⁰ 2009 Decision, p. 19.

¹³¹ The table in FEI’s Rebuttal Evidence shows that the costs previously captured Gas Cost Reconciliation Account (GCRA) are now captured by the Commodity Cost Reconciliation Account (CCRA) and the Midstream Cost Reconciliation Account (MCRA). Interest that used to accumulate in the GCRA and on the RSAM is now captured in a new account “Interest on the CCRA/MCRA/RSAM”. The account splitting coincided with the introduction of the Customer Choice Program.

were not “at risk”, stating “the vast majority of gas distribution companies in North America have some form of commodity deferral account, and that this protects both the utility from commodity risk and the customers from imprudent purchasing and from the utilities profiting from the purchase, transportation and storage of gas.”¹³²

- The RSAM, FEI’s decoupling mechanism that accounts for fluctuations in volumes, has been in place since before 2000. Dr. Booth agreed that the RSAM has not materially changed in terms of its scope or coverage since 2000.¹³³ In any event, the Commission had determined in the 2006 Decision that weather, which affects volumes and drives variances captured in the RSAM, was a symmetrical risk and should not be taken into account when establishing ROE.¹³⁴
- The SCP Mitigation Revenues Variance Deferral Account was established before the 2006 Decision. It exists for the purpose of returning un-forecast revenues from the Southern Crossing Pipeline to customers. There would not be any real risk to FEI’s earnings in the absence of this account, only potential upside.¹³⁵
- The only other notable accounts introduced since 2000 (apart from those accounts introduced since 2009 that have already been addressed above) address Insurance Premiums and BCUC Levies. These accounts cover relatively small variances in operating costs that do not have a material impact on FEI’s overall risk.¹³⁶ In the 2006 Decision, the Commission had also observed that for many of the costs other than gas costs that have deferral account treatment, the deferral treatment simply ensures “that TGI is not penalized for underestimating or rewarded for overestimating a cost over which it has little or no control.”¹³⁷

¹³² 2006 Decision, p. 25.

¹³³ Tr 8, 1456, ll. 18-21 (Booth).

¹³⁴ Referenced in 2009 Decision, p. 29.

¹³⁵ Exhibit B1-32, FBCU Rebuttal Evidence, Company Rebuttal Evidence, p. 6.

¹³⁶ Exhibit B1-32, FBCU Rebuttal Evidence, Company Rebuttal Evidence, p. 6.

¹³⁷ 2006 Decision, p. 25.

71. In terms of how FEI's short-term risk compares to other gas utilities, gas costs (which, again, are the largest component of costs) are flow through for other gas utilities as well. Many gas utilities also have deferral accounts and decoupling mechanisms in place.¹³⁸ As noted by Dr. Booth, other Canadian utilities also tend to achieve their allowed return.

D. SUMMARY REGARDING SHORT-TERM RISK

72. Short-term risk, or the risk of FEI not earning the allowed ROE within a given test year, is inherent in rate setting based on a forward test year. FEI's track record of generally being able to earn its allowed ROE had been before the Commission in previous proceedings, and does not suggest any change in FEI's short-term risk that might justify a reduction in FEI's allowed ROE or common equity ratio. FEI's deferral accounts provide essentially the same degree of protection against earnings volatility as they did in 2009, meaning that FEI's ability to earn its return in a given test year is subject to similar risks as in past years. The Commission should find as a fact that FEI's short-term risk is essentially the same as in 2009, and is similar to the risk faced by comparators in other jurisdictions.

PART FIVE: LONG TERM RISK

73. A utility faces long-run capital recovery risks that are not captured in the year-to-year variability in returns. FEI is investing in natural gas system assets that have a long useful life. Circumstances can arise during that time to make it more or less likely that FEI will be able to recover its invested capital through rates. Costs, even though allowed in rates, can become unrecoverable in the long run if FEI's product (i.e., delivered natural gas) cannot compete with energy alternatives or its product/service otherwise falls out of favour and customers reduce their consumption or leave the system. As a result, although FEI's cost of capital is informed by past earnings experience, it is also heavily influenced by the long-term business risks addressed in this Part of the submissions.¹³⁹

¹³⁸ Tr 4, 626, II. 9-19 (McShane).

¹³⁹ Exhibit B-24, BCUC-FBCU (McShane) IR 2.162.4; Tr 3, 445, II. 6-15 (McShane). An example of this is TransCanada Mainline, which (as Dr. Booth describes at pages 33 to 34 of his Evidence) has earned its allowed

74. The FBCU submitted comprehensive evidence on long-term business risk in Appendix H of their Filing, in expert evidence, and in responses to information requests. The evidence included a description of market trends, policy and legislation, operational risks, and cost competitiveness. Much of the FBCU's evidence on long-term business risk went unanswered by intervenor experts.

75. Dr. Safir provided no explicit assessment of FEI's business risk. His consideration of FEI's operating environment was essentially limited to reviewing disclosure statements of FEI's ultimate parent, Fortis Inc.¹⁴⁰

76. Dr. Booth focussed on the cost-competitiveness of natural gas on an operating cost basis, primarily in relation to the development of shale gas but also in relation to electricity rates. While there is no doubt that shale gas is a "game changer" in the North American supply market and has caused natural gas commodity prices to fall further since 2009, Dr. Booth never acknowledged in his written evidence that lower natural gas commodity rates have been largely offset by increases in other aspects of a customer's bill. He was dismissive of the impacts of capital costs and natural gas price volatility on total price competitiveness, despite the Commission's explicit recognition in 2009 that natural gas' competitive edge over electricity is dependent on many significant variables including price volatility.¹⁴¹ Dr. Booth was equally dismissive in his written evidence of non-price considerations that he later admitted affect customer behaviour and system throughput levels.¹⁴² Dr. Booth made no attempt to reconcile his assertion that FEI's competitive position has materially improved with the fact that FEI continues to face challenging customer attachment, market share, and Use Per Customer trends in spite of higher electric prices and downward-shifting commodity rates for the past four years.

ROE in each year since 1994 but now faces significant stranded asset risk due to the shift in gas demand/supply dynamics in North America.

¹⁴⁰ Tr 7, 1165, l. 11 – 1666, l. 4 (Safir).

¹⁴¹ 2009 Decision, p. 36.

¹⁴² Tr 8, 1444, ll. 17-26 (Booth).

77. The Commission should find, for the reasons set out below, that there have been both favourable and unfavourable developments from the perspective of FEI's long-term risk. Overall, FEI's long-term business risk is similar to what it had been at the time of the 2009 hearing. This Part focuses on the following points:

- (a) There appears to be little dispute that significant aspects of FEI's operating environment remain essentially unchanged, notably the trends of declining UPC, falling capture rates and shrinking market share;
- (b) The risks related to government policy and legislation, which were recognized as risks in the 2009 Decision, are similar today;
- (c) Lower commodity prices have been largely offset by increases in other elements of a customer's bill, and the somewhat improved operating cost advantage of natural gas is being counteracted by other factors; and
- (d) The ability of "New Initiatives" (principally, Natural Gas for Transportation ("NGT")) to impact FEI's overall risk profile is immaterial at this time because the associated rate base, throughput and revenues will still be dwarfed by the core natural gas business, even if the initiatives are highly successful.

A. TYPES OF LONG-TERM RISKS ARE SIMILAR TO 2009

78. In 2009, FEI had identified eight factors that had influenced FEI's long-term business risk in recent years, which the Commission listed in the 2009 Decision as follows:

- 1) Provincial climate change and energy policies have increased the risk inherent to TGI's core natural gas business;
- 2) the effect of aboriginal rights issues on utilities in BC;
- 3) the competitive position of natural gas relative to electricity has been weakened;
- 4) TGI is capturing a smaller percentage of new construction;

- 5) electricity is increasingly the choice of high-density housing;
- 6) alternative energy sources further weaken TGI's competitive position;
- 7) fuel switching has also diminished demand for natural gas; and
- 8) the use of natural gas per (customer) account continues to decline.

The same risk factors are reflected in the FBCU's evidence in this proceeding, although they have been expressed and organized somewhat differently in Appendix H.

79. The Commission had agreed with FEI in 2009 that all of the risks cited, with the exception of the climate change related risks and those related to First Nations, had existed in 2005 and had not diminished.¹⁴³ The Commission had found in 2009 that the introduction of climate change legislation by the provincial government, attitudes towards natural gas, and government policy pressures had increased FEI's long-term risk:¹⁴⁴

The Commission Panel agrees with Terasen that the introduction of climate change legislation by the provincial government has created a level of uncertainty that did not exist in 2005 and that the change in government policy will quite probably cause potential customers not to opt for natural gas and persuade potential retrofitters to opt for electricity. In addition, the Commission Panel considers that the Nyboer Report presents a scenario that did not exist in 2005 under which the three Terasen utilities might not earn a return of their capital. The scenario that now exists is described in a publication of a reputable consulting group which appears to have the attention of policymakers.

80. Irrespective of how the specific types of long-term risks facing FEI are characterized or grouped, the 2009 proceeding is the appropriate point of comparison for the Commission's consideration in this GCOC proceeding of whether FEI's long-term risk has materially changed.

B. AREAS OF AGREEMENT/UNCONTROVERTED EVIDENCE ON LONG-TERM RISK

81. As one would expect, most aspects of FEI's operating environment remain largely unchanged compared to three years ago when the Commission last assessed FEI's cost

¹⁴³ 2009 Decision, pp. 20 and 36.

¹⁴⁴ 2009 Decision, p. 37.

of capital. Of the eight risk items referenced in the 2009 Decision, there has been little controversy in this GCOC proceeding about the following five items:¹⁴⁵

- 2) the effect of aboriginal rights issues on utilities in BC;
- 4) [FEI] is capturing a smaller percentage of new construction;
- 5) electricity is increasingly the choice of high-density housing;
- 6) alternative energy sources further weaken [FEI's] competitive position; and
- 8) the use of natural gas per (customer) account continues to decline.

The evidence on the continued importance of these factors to FEI's overall business risk is addressed below. All of the market trends in the above list directly affect throughput levels on the system. As those trends have developed, FEI is facing a situation where FEI has a duty to continue to make investments in the system that are necessary to serve existing and new customers, but the throughput associated with these investments is lower now than it has ever been. This gives rise to long-term risk.

(a) The Effect of Aboriginal Rights Issues on Utilities in BC

82. In the 2009 Decision, the Commission had accepted that FEI faced a new reality of dealing with First Nations, but concluded that it did "not consider that the risks presently cast doubt over TGI's ability to earn a return on or of its capital".¹⁴⁶ The evidence in Appendix H demonstrates that aboriginal rights issues are broadly the same now as they had been in 2009, but new court decisions now require that the Commission consider aboriginal rights and title issues in the context of project approvals.¹⁴⁷ The FBCU's evidence on this point was not addressed by parties through IRs or at the hearing. In short, the risks associated with First Nations have certainly not declined since 2009; if anything, they are somewhat higher.

¹⁴⁵ 2009 Decision, p. 20.

¹⁴⁶ 2009 Decision, p. 37.

¹⁴⁷ Exhibit B1-9-6, FBCU Evidence, Appendix H, Company Evidence, p. 52.

(b) Customer Additions and Capture Rates

83. While the number of annual customer additions is still positive, Dr. Booth accepted that:

- growth is slowing down, meaning that FEI is adding fewer net new customers every year, as compared to what it used to add annually;¹⁴⁸
- customers being added today generally use roughly half the amount of natural gas than used to be the case (see our UPC discussion, which follows shortly), meaning that FEI needs to add twice as many new customers to generate the same amount of natural gas throughput as a single customer addition used to generate;¹⁴⁹ and
- FEI's residential capture rate is still declining, meaning that natural gas is capturing a progressively smaller share of the new housing market.¹⁵⁰

These challenging trends are closely associated with the prevalence of multi-family dwellings in B.C., discussed next.

84. As throughput is the key to FEI generating revenue to recover invested capital, FEI's long-term risk is significantly affected by these trends. The Commission should find that there has been no improvement in these trends since 2009, let alone a material improvement that might warrant a lower allowed ROE or common equity ratio for FEI.

(c) Electricity is Increasingly the Choice of High-Density Housing

85. Natural gas has a low penetration rate in multi-family dwellings; FEI's capture rate is only 34% for condominiums and 28% in townhouses, compared to capture rates in single family dwellings of 71%. The main driver of low capture rates in multi-family dwellings is that

¹⁴⁸ Tr 8, 1447, II. 7-12 (Booth).

¹⁴⁹ Exhibit B1-9-6, FBCU Evidence, Appendix H, Company Evidence, p. 33; Tr 8, 1448, II. 18-25 (Booth).

¹⁵⁰ Tr 8, 1448, II. 3-8 (Booth).

builder decisions are being driven by the unfavourable economics of installing a natural gas application.¹⁵¹ There is an observable shift towards multi-family dwellings in BC, meaning that FEI's overall capture rate is declining over time.¹⁵² FEI's overall market share is, as a consequence, shrinking.

86. Dr. Booth's written evidence appeared to question the relevance of trends towards multi-family dwellings in BC by asserting that the Ontario natural gas distribution utility EGDI was not citing "condification" in Toronto as a long-term risk factor.¹⁵³ However, in a recent AUC proceeding, Dr. Booth had characterized the shift towards multi-family dwellings in the Lower Mainland as "causing significant competitive pressure from electricity".¹⁵⁴ He had, in effect, cited "condification" to the AUC as a distinguishing feature between FEI and Alberta utilities and a reason for why Alberta utilities did not warrant an overall allowed return as high as that of FEI. Dr. Booth accepted during cross-examination that "condification" was still causing "significant competitive pressure from electricity" for FEI.¹⁵⁵ Dr. Booth also acknowledged that he expected FEI's capture rate to continue to deteriorate:

MR. GHIKAS: Q: Yeah, I'm changing gears a bit here on you, Dr. Booth. Today, as we speak today, do you have any evidence that FEI's capture rate in multi-family dwellings is any more favourable than it was back in July of 2011?

DR. BOOTH: A: No. I'd expect if anything it would deteriorate simply because of condo-fication or condifying, whatever you want to refer to it as. So, I will fully accept that FEI does have problems with capture rates relative to a jurisdiction where there is more developments in terms of traditional residential housing and low-rise developments.¹⁵⁶

87. The Commission should find that FEI's deteriorating capture rate and shrinking market share support the FBCU's submission that FEI's long-term risk has not declined since 2009.

¹⁵¹ Exhibit B1-9-6, FBCU Evidence, Appendix H, Company Evidence, p. 31.

¹⁵² Exhibit B1-9-6, FBCU Evidence, Appendix H, Company Evidence, p. 36.

¹⁵³ Exhibit C6-12, AMPC Evidence, Booth Evidence, p. 40, ll. 3-6.

¹⁵⁴ Exhibit B1-50, p. 4; Tr 7, 1373, l. 11 – 1374, l. 25 (Booth).

¹⁵⁵ Tr 7, 1374, ll. 3-14 (Booth).

¹⁵⁶ Tr 7, 1384, l. 6 – 1385, l. 1 (Booth).

(d) Alternative Energy Sources Further Weaken FEI's Competitive Position

88. The FBCU demonstrated the continued consumer interest in alternative energy, and how it can affect natural gas throughput levels, at page 28 of Appendix H.¹⁵⁷ There have been a number of recent alternative energy projects approved, illustrating the momentum behind alternative energy. The growing consumer awareness of alternative energy, its increasing cost-effectiveness, and its green attributes, have reaffirmed the importance of this risk factor for FEI.

(e) The Use of Natural Gas Per Customer Account (UPC) Continues to Decline

89. FEI's residential use rate for existing and new customers (UPC) has been declining.¹⁵⁸ Mr. Stout stated that, among residential customers, "we are also seeing a significant change over the past four or five years."¹⁵⁹ The trend described by Mr. Stout is illustrated in Figure 23 of Appendix H.¹⁶⁰ In part, declining UPC is due to increased efficiency standards, better building envelopes and the prevalence of smaller dwellings. FEI's customers are also changing the way that they use natural gas.¹⁶¹ The 2010 FortisBC Residential New Construction Research, which post-dates the 2009 hearing, shows how natural gas is increasingly being used as a secondary fuelling source in new homes, rather than the primary fuelling source.¹⁶²

90. UPC trends directly impact throughput on FEI's system, and thus affect FEI's long-term ability to recover invested capital through rates. The continuing decline in UPC suggests that the current 40% common equity ratio remains appropriate.

¹⁵⁷ Exhibit B1-9-6, FBCU Evidence.

¹⁵⁸ Exhibit B1-9-6, FBCU Evidence, Appendix H, Company Evidence, p. 31 to 35; Tr 2, 184, l. 25 – 185, l. 4 (Stout).

¹⁵⁹ Tr 2, 184, l. 25 – 185, l. 4 (Stout).

¹⁶⁰ Exhibit B1-9-6, FBCU Evidence.

¹⁶¹ Exhibit B1-9-6, FBCU Evidence, Appendix H, Company Evidence, p. 32.

¹⁶² Exhibit B1-20, BCUC-FBCU IR 1.97.1.

(f) Summary on Market Trends

91. Dr. Booth generally accepted the FBCU's evidence that FEI is facing declining UPC, shrinking market share and falling customer capture rates. Dr. Safir did not speak to market trends at all. There is no reason to expect that the drivers behind the challenging market trends will cease. The Commission should find that sustained declines in UPC, shrinking market share and declining customer capture rates all suggest that FEI's overall long-term risk has not improved since 2009.

92. In the next three sections, the FBCU address the long-term risk factors, about which there was greater focus in this GCOC proceeding.

C. CONTINUED RISK ASSOCIATED WITH POLICY AND LEGISLATION

93. As stated above, the Commission had recognized in the 2009 Decision that climate change policies and legislation represented new long-term risks for FEI. One issue that was raised in the context of this GCOC proceeding was the extent to which FEI continued to face those long-term risks in light of the new Natural Gas Strategy. The FBCU submit that the risks associated with policy and legislation are just as great, if not greater, today as they had been in 2009 for two reasons.

94. First, essentially all of the legislation and policy, to which the Commission had referred in the 2009 Decision,¹⁶³ remains in place.

95. Second, the 2010 *Clean Energy Act*¹⁶⁴ (and the consequential amendments to the UCA to reflect the new legislation), which post-dates the last proceeding, has reinforced the challenges FEI had articulated in 2009 for the core natural gas business. The *Clean Energy Act*, among other things, has precluded natural gas utilities from using incentives to promote fuel switching from electricity to gas for residential and commercial uses because domestic consumption increases GHGs *within the province*. Prior to the CEA, FEI had been pursuing the

¹⁶³ 2009 Decision, pp. 20-24.

¹⁶⁴ S.B.C. 2010, c. 22 (the "CEA").

use of incentives to encourage fuel switching from electricity as a means of adding throughput while reducing GHGs. The GHG reduction associated with this type of fuel switching would have come about because the marginal source of electricity used to serve winter heating load in BC tends to be imported, high carbon electricity generated from coal or natural gas combustion at lower efficiencies. However, the GHG emissions reductions under that scenario would occur *outside the province* and can no longer be considered.¹⁶⁵ Mr. Stout elaborated on the significance of this development for FEI:

The *Clean Energy Act* was passed in 2010 and brought into legislation. And as we have noted in the evidence, that was -- went to further kind of strengthen the whole environmental standards. And one issue that was addressed in there was a change to policies regarding demand-side measures. And that one explicitly dealt with switching from electricity to natural gas. And we had proposed at times prior that natural gas could be a demand-side measure for the electric side of the energy equation. And that was taken away in the *Clean Energy Act* as one example of ongoing kind of structures around natural gas versus electricity, competitive position.¹⁶⁶

96. Under the *CEA*, the Commission must also account for enumerated energy objectives when considering certain types of applications by public utilities. The objectives reinforce GHG emissions policy, among other things. The Commission advanced a challenging interpretation of these objectives in the context of FEI's 2011-2014 Price Risk Management Plan:¹⁶⁷

Further, in determining the merits of an objective related to the competition with electricity, the Commission Panel believes it appropriate to consider the British Columbia's Energy Objectives as set out in the *CEA*, specifically objective (h) which is "to encourage the switching from one kind of energy source or use another that decreases greenhouse gas emissions in British Columbia." (*CEA*, Part 1, 2(h)) It should be noted that the *CEA* objective (c) contemplates that at least 93 percent of the electricity in British Columbia be generated from clean or renewable resources. In this proceeding FEU has asserted that the PRMP can, in the short term, mitigate the impact of government policies that impact the competitiveness of natural gas to other energy forms or shape public perception

¹⁶⁵ CEA, ss. 1 and 2; Exhibit B1-9-6, FBCU Evidence, Appendix H, Company Evidence, p. 44.

¹⁶⁶ Tr 2, 221, l. 14 – 222, l. 1 (Stout).

¹⁶⁷ PRMP Decision, p. 21 (Excerpt found at Exhibit B1-50, p. 30).

that reduces the demand for natural gas. [Reference omitted] The Panel's position is that it is not in the public interest to have a PRMP objective designed to mitigate the impact of an objective of government policy.

The above finding represents a significant departure from past decisions relating to the PRMP. The Commission had previously accepted competitive considerations as an appropriate objective of the PRMP. The logical implication of the above-quoted passage is that electricity or green alternatives are favoured by government policy over the use of natural gas, with regulated natural gas service to FEI's core market supported to a lesser degree. Irrespective of whether the Commission's interpretation is correct (for starters, the legislated energy objectives are not incorporated by reference into the rate setting provisions of the *UCA*, s.59-61), the above finding illustrates the continuing impacts of government policy and legislation on FEI's business.

97. The FBCU were questioned about whether the Natural Gas Strategy¹⁶⁸ has undone the policy and legislative challenges recognized by the Commission in the 2009 Decision. It has not. The Natural Gas Strategy is focussed primarily on the development of natural gas and LNG exports from BC. It does not refer to the use of natural gas within BC, except in the transportation sector where its use reduces GHG emissions. The Natural Gas Strategy must be read in light of the *CEA*. Mr. Dall'Antonia elaborated:

So the policies that have come out have been for LNG export and even the use of transportation. It's not because they want to use natural gas. They want to reduce greenhouse gas emissions. So it's a greenhouse gas reductions regulation, which is the ones Mr. Kung is referring to. So again, it's done in the context of how you get -- reduce greenhouse gas emissions.

And if you go back to the Clean Energy Act as the single most important piece of legislation in this area since 2009, we haven't really spoken to it specifically but it has that impact on how gas is viewed in the context of space and hot water heating, and I'm actually just going to point to a decision of the Commission on the Price Risk Management Plan, where ~~they accepted that~~ [sic] one of our objectives as a company was to be competitive with electricity in our Price Risk Management Plan, and that objective was somewhat brought into question because it wasn't viewed potentially as consistent with the Clean Energy Act,

¹⁶⁸ A copy of the Natural Gas Strategy is Exhibit C6-17.

which one of the objectives in the Clean Energy Act is to reduce greenhouse gas emissions, therefore should electricity be used at the margin instead of natural gas.

So I think it is a changing energy environment, policy environment. I think natural gas, because of the resource we have, can now be used within B.C. in different application that will be beneficial to the economy to the extent that it produced [sic-reduced] costs for transportation with the added benefit of reducing greenhouse gas emission.

But to the direct application which most of our customers use, which is space and hot water heating, there hasn't been a policy that would suggest the government has changed in their view that greenhouse gas reductions still need to be achieved.¹⁶⁹

98. Moody's recently (October 2012) downgraded its assessment of the supportiveness of the BC regulatory environment.¹⁷⁰

99. In summary, the Commission should find that the risks associated with GHG emissions policy and legislation have not diminished, and have perhaps even increased, since 2009.

D. OPERATING COST COMPETITIVENESS

100. Dr. Booth's conclusion that FEI's long-term business risk has declined since 2009 was based on considerations relating to operating cost competitiveness, principally what he termed the shale gas "game changer". He indicated, for instance, that he regarded "...the competitive position of FEI as having significantly improved relative to electricity since 2009 and it takes FEI back to before 2000 when it operated on a 33% common equity ratio."¹⁷¹ The FBCU take no issue with the fact that development of shale gas is a "game changer" from the North American supply perspective, or with the fact that shale gas development has contributed to lower natural gas commodity prices.¹⁷² Electricity prices have increased. However, Dr. Booth's

¹⁶⁹ Tr 2, 241, l. 15 – 243, l. 8 (Dall'Antonia).

¹⁷⁰ Tr 3, 366, ll. 7-18 (Dall'Antonia); Appendix to Exhibit B1-32, FBCU Evidence, McShane Rebuttal Evidence.

¹⁷¹ Exhibit C6-12, AMPC Evidence, Booth Evidence, p. 39.

¹⁷² Exhibit B1-9-6, FBCU Evidence, Appendix H, Company Evidence, p. 16; Tr 2, 163, 11-14 (Des Brisay).

evidence on operating cost competitiveness paints an incomplete, and ultimately distorted, picture of FEI's overall competitive position. The FBCU make the following points below:

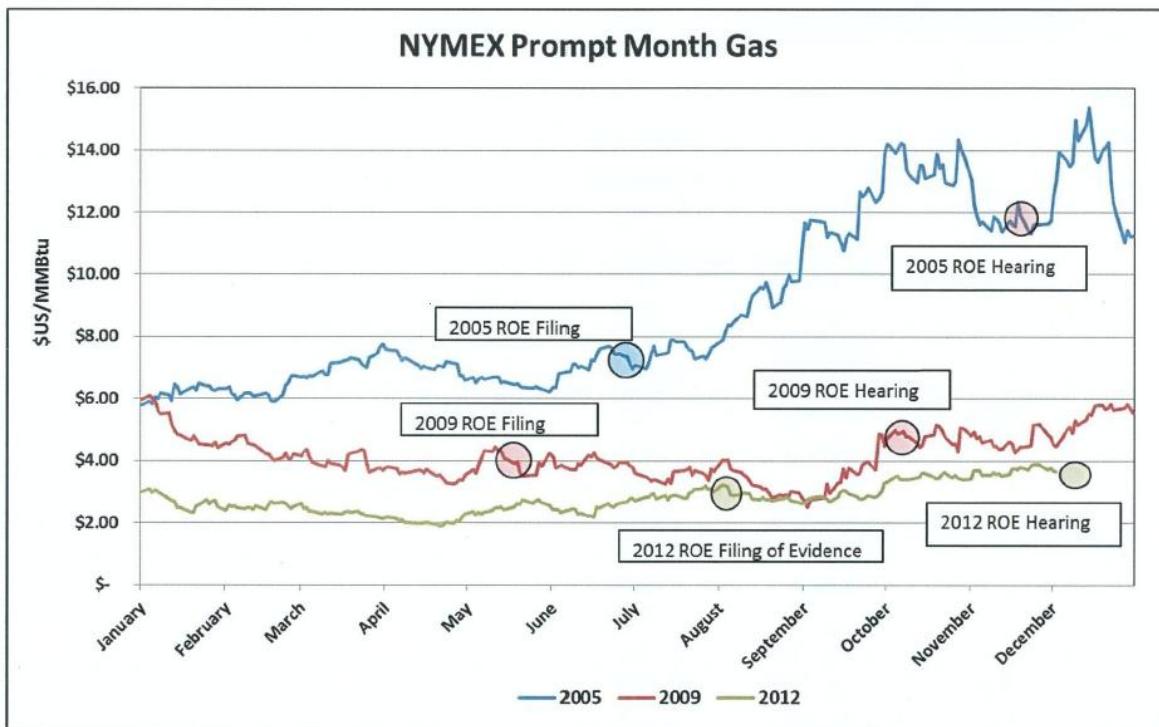
- Natural gas prices had already fallen significantly prior to the 2009 hearing in response to an improved supply outlook resulting from North American shale gas developments, and the lower prices at that time had been reflected in the evidentiary record of the 2009 proceeding;
- The impact of shale gas on FEI's longer-term ability to access lower cost natural gas commodity for its customers is more complex than Dr. Booth suggests, and price volatility remains an issue;
- The effect of lower commodity prices on a customer's overall natural gas bill has been almost completely offset by increases in the other components of the customer's bill;
- The impact of the improved operating cost competitiveness of natural gas has been diminished by the higher capital costs for natural gas heating compared to electric heating; and
- Other non-cost factors that affect consumer decisions and energy use have also countered the impact of the operating cost advantage.

The continued importance of factors other than commodity costs to FEI's overall competitiveness is self-evident. Four years of lower natural gas prices and somewhat higher electric prices have been insufficient to overcome the unfavourable trends in residential and commercial UPC, attachments and market share that FEI has been experiencing since before 2009.

(a) The Impact of Shale Gas Developments on Commodity Prices was Recognised in 2009

101. The FBCU agree that FEI's commodity rates have fallen since the 2009 proceeding. However, the Commission should be alive to the fact that the lower commodity prices trumpeted by Dr. Booth was not a development that occurred all at once following the 2009 Decision. A significant portion of the downward shift in natural gas commodity prices associated with the supply potential of shale gas developments occurred prior to the close of the 2009 proceeding. The following graph shows where natural gas prices stood during 2005, 2009 and 2012, illustrating that prices decreased more between 2005 and 2009 than they have since 2009:¹⁷³

Figure 9 – NYMEX Prompt Month Gas Comparison 2005, 2009, 2012



¹⁷³ Exhibit B1-51, p. 10.

102. The graphs provided in Exhibit B1-37 (FBUC Undertaking No. 2) illustrate that prevailing market prices in November 2012 were approximately the same as they had been in November 2009.

103. The Commission had evidence before it in 2009 of a downward shift in natural gas prices.¹⁷⁴ Counsel for the FBCU put to Dr. Booth the following passage from the 2009 final submission of the intervenor that had retained him in 2009:¹⁷⁵

It is ludicrous to suggest that gas is riskier today than in 2005. Prices are at half the level, and huge shale gas finds have been made throughout North America and in particular in B.C. In 2005 there was some risk gas prices would stay high. Today, particularly with the recent shale gas discoveries, there is little chance that they will return to 2005 levels.

104. Dr. Booth did not disagree that, as of the 2009 proceeding, prices had already halved since 2006 as a result of shale gas finds.¹⁷⁶ The Commission had noted in its 2009 Decision the improvement in the competitive position of natural gas relative to electricity, in the context of finding that the relationship between natural gas and electricity prices was not the only determinant of FEI's competitive risk.¹⁷⁷

(b) The Implications of Shale Gas for FEI's Operating Cost Competitiveness Since 2009 Are Complex

105. Dr. Booth presented information on how shale gas is changing supply and price expectations in North America generally. The impact of shale gas on FEI's longer-term ability to access lower cost natural gas commodity for its customers is more complex than his general discussion suggests. Price volatility also remains significant.

¹⁷⁴ Exhibit B1-51, p. 10.

¹⁷⁵ Tr 8, 1402, ll. 4-12 (Booth).

¹⁷⁶ Tr 8 1404, l. 19 – 1405, l. 16 (Booth).

¹⁷⁷ 2009 Decision, p. 36.

Impacts Specific to FEI vs. North American Market as a Whole

106. The FBCU agree that the North American natural gas marketplace has undergone a fundamental shift as a result of technological advances that have unlocked the potential of the shale gas supply resources resulting in a much more favourable supply outlook. The long-term market view of natural gas prices is lower now compared to the outlook in 2009 (although the current low price environment is generally regarded as unsustainable).¹⁷⁸ However, the presence of shale gas deposits in BC does not translate into guaranteed future access to reliable supply for FEI at reasonable prices.

107. First, shale gas developments in British Columbia are finding it difficult to compete with other shale gas developments such as the Marcellus Formation in northeast North America.¹⁷⁹ In contrast to thriving developments such as the Marcellus Formation, production growth in Northeastern British Columbia has stopped altogether and is at risk of declining because of the higher cost of development relative to other areas, and a lack of infrastructure to develop the resource and connect to markets.¹⁸⁰ There is a risk that resources will be left stranded.¹⁸¹ At a minimum, higher market prices and expansion of market access for producers will be necessary to encourage significant expansion of the shale gas resources in British Columbia.¹⁸²

108. Second, although the development of tight and shale gas resources across North America has decreased FEI's risk associated with long term availability of supply, the underlying infrastructure to move this natural gas to FEI's service territory remains unchanged as compared to 2009. The development of several significant gas transmission infrastructure projects connecting BC deposits with Alberta and eastern markets and the potential for LNG exports in the coming years could alter the historical pricing relationship of BC supply in relation

¹⁷⁸ Exhibit B1-9-6, FBCU Evidence, Appendix H, Company Evidence, p. 16 and p. 17, Figure 9.

¹⁷⁹ Tr 2, 147, l. 11 – 148, l. 3 (Des Brisay).

¹⁸⁰ Tr 2, 161, l. 25 – 162, l. 5 (Des Brisay).

¹⁸¹ Tr 2, 162, ll. 10 - 15 (Des Brisay).

¹⁸² Exhibit B1-9-6, FBCU Evidence, Appendix H, Company Evidence, pp. 15-19 and 38-39.

to Alberta production. This could have a negative impact to the price that consumers pay for natural gas in BC in the coming years.¹⁸³

109. Approximately 85% of FEI's total supply is accessed from the Station 2 market, and delivered to the Lower Mainland through the Westcoast transmission line. Westcoast is currently competing with other pipelines that are being built into northeastern British Columbia that are directly connecting to that supply potential and instead moving the gas into Alberta, rather than British Columbia.¹⁸⁴ As Ms. Des Brisay noted: "FEI cannot sit back and assume that gas will be supplied to Station 2."¹⁸⁵ If future new BC gas production bypasses the Station 2 marketplace altogether, then it could lead to price disconnects at Station 2 and perhaps the constraint of physical availability of supply.¹⁸⁶

110. The Commission should accept Dr. Booth's discussion on the prospective implications of shale gas on commodity supply and prices for what it is – a general and simplified description of North American gas markets taken from evidence filed by utilities in other proceedings. The Commission should accept the more detailed and considered evidence of the FBCU in Appendix H¹⁸⁷, responses to IRs¹⁸⁸, and at the hearing as to how specifically FEI will be affected in the longer-term by shale gas development.

Ongoing Volatility in Natural Gas Prices

111. The Commission recognized in its 2009 Decision that volatility in natural gas prices affects the competitiveness of natural gas relative to electricity.¹⁸⁹

112. Although the continued improvement in North American's long-term supply potential has resulted in a lower natural gas price outlook than what was expected in 2009,

¹⁸³ Exhibit B1-9-6, FBCU Evidence, Appendix H, Company Evidence, pp. 15-19 and 38.

¹⁸⁴ Tr 2, 167, ll. 13 - 20 (Des Brisay).

¹⁸⁵ Tr 2, 168, l. 23 – 169, l. 6 (Des Brisay); Tr 2, 170, l. 15 – 171, l. 5 (Des Brisay).

¹⁸⁶ Tr 2, 167, l. 21 – 168, l. 5 (Des Brisay).

¹⁸⁷ Exhibit B1-9-6, FBCU Evidence, Appendix H, Company Evidence, pp. 15-19 and 38-41.

¹⁸⁸ Exhibit B1-20, BCUC-FBCU IR 1.97.1.

¹⁸⁹ 2009 Decision, p. 36.

there continues be a high level of price volatility.¹⁹⁰ Factors such as short term supply and demand imbalances and regional infrastructure constraints can still cause market prices to fluctuate significantly. For example, as discussed above, during 2012 NYMEX prices fell below \$2.00 US/MMBtu in March 2012, but by July 2012 had increased more than 50% to over \$3.00. By November 2012, prices had further increased to over \$3.50 US/MMBtu.¹⁹¹ Longer-term factors that also create uncertainty for future commodity prices include the impact of future environmental compliance costs that may be required to support expanded development of shale gas developments using hydraulic fracturing, or changes in use or new market development such as LNG exports.¹⁹²

113. Market price volatility can have an negative impact on the Company's commodity rates and taints customers view of using natural gas. As a result, customers change their consumption behaviour based on the real or perceived view that gas is more volatile than or uncompetitive with other sources of energy. Mr. Stout testified:¹⁹³

Sorry, I think, though, Mr. Wallace, from a customer's viewpoint, and I think we've all been through this, whether it's the gas pumps or wherever, when prices shift we tend to adapt to whatever that norm is. So prices are high or low for different products we buy, then we get used to that. When we see change in that, that's what drives us to change our behaviour again. Short-term versus longterm.

So, in the short term, you can quit driving, for example, if you're in your car, those kind of things. In the longer term, you can buy a more fuel-efficient vehicle to mitigate those. But again, you adjust your spending around your income, and disposable income, and changes to what you think is the norm. It's around that relative change that drives people's behaviour to shift. So you still have the risk of shifting behaviours, and what else is happening in the market for other alternatives to mitigate people's behaviour as well.

¹⁹⁰ Exhibit B1-9-6, FBCU Evidence, Appendix H, Company Evidence, pp. 21-22; Exhibit B1-20, BCUC-FBCU IR 1.103.1; 1.105.1 (AECO Forward curve volatility).

¹⁹¹ Exhibit B1-37, FBCA Undertaking No. 2. NYMEX and Henry Hub are synonymous in this context.

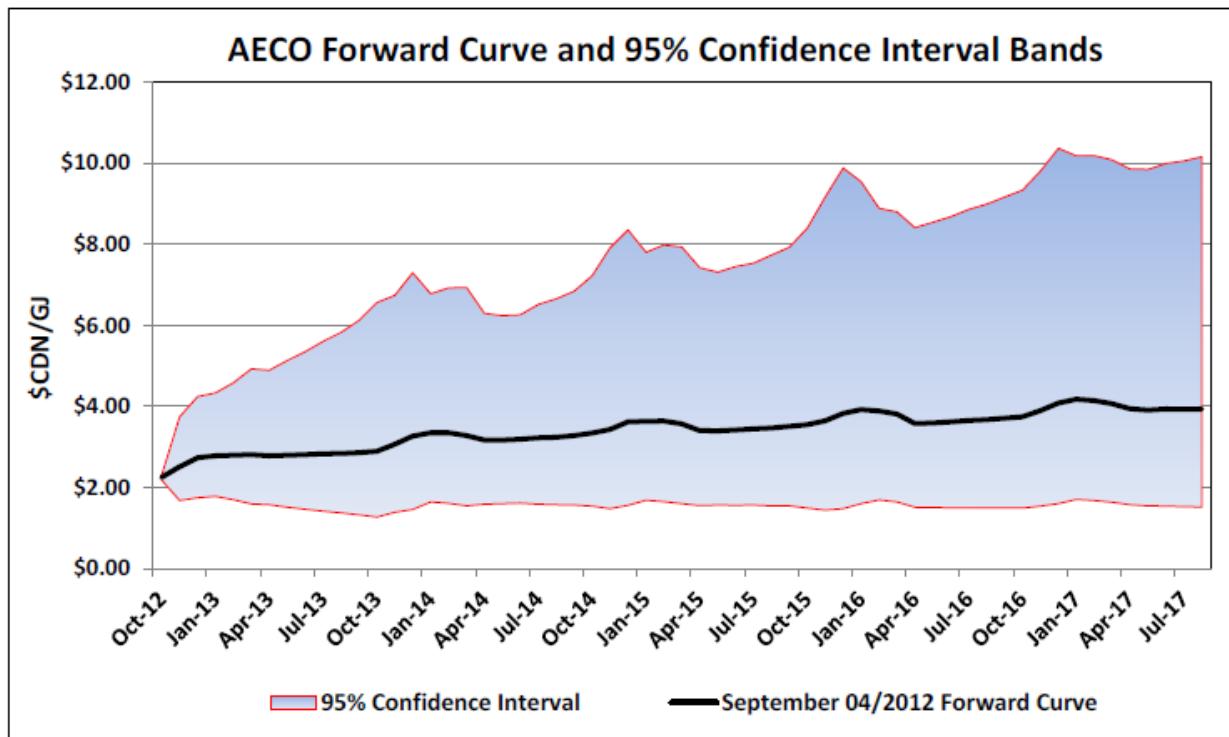
¹⁹² Tr 2, 153, l. 18 to 154, l. 7.

¹⁹³ Tr 2, 158, ll. 1-20 (Stout).

Mr. Stout's analogy to our collective experience at the gas pumps is a good one. People would tend to perceive a five cent reduction at the gas pump as a bargain (and possibly line up for gas), without considering that gas prices used to be only a fraction of what they are today. They have, as Mr. Stout put it, adjusted to the new norm.

114. The market's view of future price volatility is illustrated in the following figure which was produced using market based volatility information derived from AECO/NIT option prices, or implied volatility.¹⁹⁴ The figure shows a 95% confidence interval for future AECO prices that is quite wide (for example a range of \$1.75 to \$8 per GJ in November 2014) as of September 4, 2012.

Figure 10 – AECO Forward Curve



115. The Company uses a number of tools to mitigate the impact of commodity price volatility on customers bills and continues to explore different options.¹⁹⁵ In the past these tools have included the use of hedging instruments; however, the majority of these activities

¹⁹⁴ Exhibit B1-20, BCUC IR 1.105.1.

¹⁹⁵ Exhibit B1-20, BCUC IR 1.97.1

were suspended in 2011 pursuant to the PRMP Decision. As a result, although the Company has acknowledged that supply availability and commodity price risk has decreased, the risk associated with price volatility is higher than in 2009.

Summary on Shale Gas

116. Regulators in other provinces have rejected Dr. Booth's argument that shale gas development is a basis to reduce the common equity ratios for natural gas distribution utilities. (This is discussed further in Part Six of this submission.) Based on the above facts, there is even less justification to reduce FEI's common equity ratio than for other Canadian utilities.

(c) Price of Delivered Natural Gas (i.e. Total Bill Impact) is Essentially Unchanged Since 2009

117. In assessing price competitiveness of FEI's product, i.e. delivered natural gas, it is the delivered price to the customer that is relevant, not just the commodity price.¹⁹⁶ The Commission has recognized this previously, stating in the 2011-2014 Price Risk Management Plan Decision:¹⁹⁷

The Commission Panel views the commodity price as just one of the many elements affected by market forces which in concert determine the competitive position of natural gas relative to electricity and other energy sources. In addition, the Utilities must consider factors related to delivery costs as well as those affecting the cost of electricity itself.

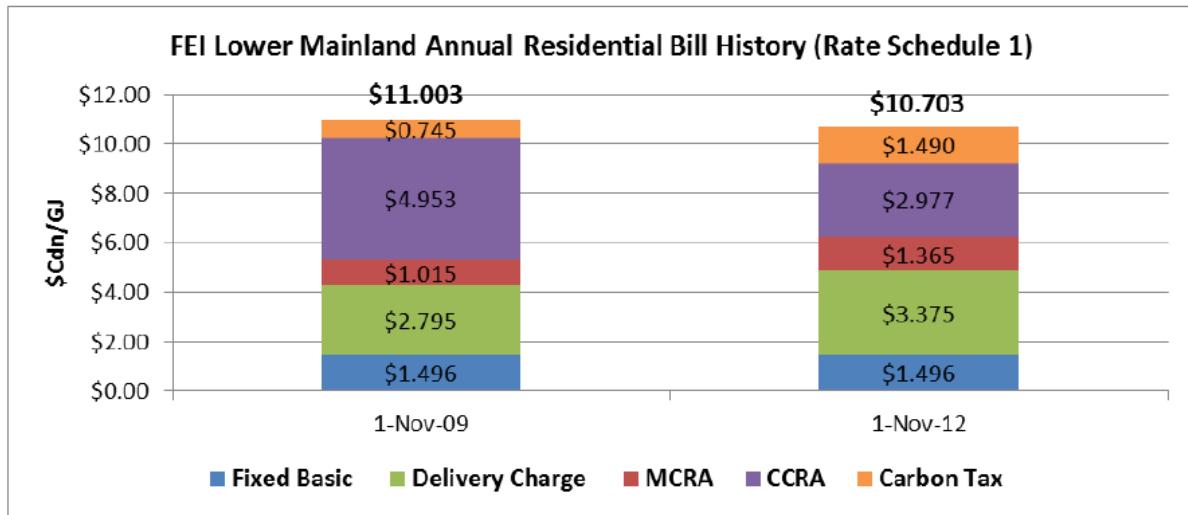
Competitive factors other than commodity price are still at work, such that lower commodity prices have not translated into materially lower long-term risk for FEI since the close of the 2009 proceeding.

¹⁹⁶ Tr 3, 344, II. 9 – 20 (Dall'Antonia).

¹⁹⁷ PRMP Decision, p.21 (excerpt found at p. 30 of Exhibit B-1-50).

118. The figure below demonstrates that, as a result of increases in delivery and midstream charges and the carbon tax, the price the average Lower Mainland customer pays for delivered natural gas is very close to what it had been in Fall 2009¹⁹⁸:

Figure 11 – Total Bill Comparison November 2009-November 2012



Using a 95 GJ annual use rate (approximately 10% *higher* than the current average for Lower Mainland customers of 85 GJ)¹⁹⁹, the difference in the total annual bill from November 2009 to today is only \$28.50, or a decrease of less than 3%.²⁰⁰

119. The remaining gap between the bills depicted above is likely to be eliminated in the near future. FEI's commodity rates are subject to a quarterly review process and resetting mechanism based on the expected procurement costs over the next 12 months adjusted for the amortization of any surpluses or deficits from previous periods. The current commodity rate of \$2.977 (depicted above) was first implemented on 1 April 2012. However, the winter of 2011/12 was one of the warmest winters on record in most of North America which contributed to record storage levels at the end of the heating season and resulted in the lowest market prices in more than a decade being experienced in early 2012. Over the course of

¹⁹⁸ Exhibit B1-37, FBCU Undertaking No. 2, Figure 4. See also: Tr. 2, 132, ll. 12-25 (Stout); Tr 2, 129, ll. 1-19 (Des Brisay).

¹⁹⁹ Exhibit B1-9-6, FBCU Evidence, Appendix H, Company Evidence, p. 33.

²⁰⁰ Tr 8, 1442, ll. 4-13 (Booth).

2012, however, market prices have increased by more than 50% from these lows.²⁰¹ At time of filing the fourth quarter gas cost review reports, FEI's commodity rate was only reflective of approximately 85% the expected cost to purchase gas over the 2013.²⁰² This will put upward pressure on commodity rates in the near future.

120. The very low natural gas prices being experienced today are generally the product of abundant gas supply due to shale gas developments and lower demand due to slow economic recovery. In addition, the winter of 2011/12 was one of the warmest winters on record in most of North America, which contributed to record storage levels at the end of the heating season and resulted in the lowest market prices in more than a decade being experienced in early 2012. Over the course of 2012, spot prices have increased by more than 50% from these lows. The increase in 2012 has been due largely to increased demand from power generation and a slow-down in production growth, both in response to the low prices. The parties appear to agree that prices are expected to continue to rise from their current levels as supply and demand continue to rebalance in the North American market.²⁰³ Industry commodity price forecasts, while still lower than what they were in Fall 2009, reflect the expected increase in commodity prices over time as the supply and demand balance tightens further.²⁰⁴

121. More generally, it is recognised that the natural gas price environment being experienced today is the product of abundant gas supply due to shale gas developments and slower demand response. Over the longer term, the parties appear to agree that prices are expected to continue to rise from their current levels as supply and demand continue to

²⁰¹ Exhibit B1-9-6, FBCU Evidence, Appendix H, Company Evidence, pp.18-19.

²⁰² Commission Order G-179-12, para. B, approving the 2012Q4 gas cost reports and proposed commodity rates; Tr 2, 135, II 12-16.

²⁰³ Exhibit B1-9-6, FBCU Evidence, Appendix H, Company Evidence, section 5.1; Exhibit B1-20, BCUC-FBCU IR 1.103.1; 1.104.1 (NYMEX forecasts); Tr 2, 260, II. 8-18 (Stout). At Exhibit C6-12, AMPC Evidence, Booth Evidence, p. 36, Dr. Booth stated that, while the link between natural gas prices and oil prices has been broken due to the rapid development of shale gas, he expects substitution of gas for oil to drive up the price of natural gas to better equalise their energy equivalence.

²⁰⁴ Exhibit B1-36, FBCU Undertaking No. 1.

rebalance in the North American market.²⁰⁵ The current long-term market view of future natural gas prices, while still lower than what they were in Fall 2009, reflects the expected increase in commodity prices over time as the supply and demand balance tightens further.²⁰⁶

122. Residential and commercial consumption is price inelastic in the short-run; FEI's residential and commercial customers do not tend to respond to lower commodity costs by deciding to burn more natural gas.²⁰⁷ Industrial demand is more sensitive to commodity price changes because some enterprises have the ability to switch between fuel sources; however, industrial throughput represents only 12% of FEI's total delivery margin revenue.²⁰⁸ Commodity prices are expected to rise, and customers capable of fuel switching may not remain on natural gas when that occurs. Industrial increases are limited due to the number of customers that have been lost in this sector since 2001.²⁰⁹

123. Dr. Booth did not reference the full delivered cost of gas in his analysis, leaving an incomplete picture of the overall operating cost-competitiveness of delivered natural gas.

(d) Higher Capital Cost Materially Offsets Operating Cost Advantage

124. The price competitiveness of natural gas *vis a vis* electricity has still improved since 2009 on an operating cost basis because electricity prices have increased (although the impact of change is overstated by focussing only on the differential with BC Hydro's Step 2 rate instead of a blend of Steps 1 and 2).²¹⁰ However, consumers who are faced with a longer-term decision to install gas or electric appliances (e.g. builders, developers, and customers whose

²⁰⁵ Exhibit B1-9-6, FBCU Evidence, Appendix H, Company Evidence, section 5.1; Exhibit B1-20, BCUC-FBCU IR 1.103.1; 1.104.1 (NYMEX forecasts); Tr 2, 260, ll. 8-18 (Stout). At Exhibit C6-12, AMPC Evidence, Booth Evidence, p. 36, Dr. Booth stated that, while the link between natural gas prices and oil prices has been broken due to the rapid development of shale gas, he expects substitution of gas for oil to drive up the price of natural gas to better equalise their energy equivalence.

²⁰⁶ Exhibit B1-36, FBCU Undertaking No. 1.

²⁰⁷ Exhibit B1-24, BCUC-FBCU IR 2.152.1.

²⁰⁸ Exhibit B1-9-6, FBCU Evidence, Appendix H, p. 8; Tr 8, 1463, ll. 1-9 (Booth).

²⁰⁹ Exhibit B1-9-6, FBCU Evidence, Appendix H, p. 36

²¹⁰ Smaller and more energy-efficient dwellings such as townhouses and condominiums (which are becoming increasingly relevant as the housing mix changes) may be capable of getting some or all of the energy need for space and water heating from BC Hydro's Step 1 block: BCUC-FBCU IR 1.98.2.

appliances are reaching end-of-life) consider the relatively high up-front costs of installing natural gas appliances, not just ongoing operating costs.²¹¹ The cost advantage that natural gas has relative to electricity turns into a deficit, or at least diminishes significantly, when capital costs are considered.²¹²

125. Dr. Booth sought to minimize the FBCU's evidence on the impact of higher capital costs on FEI's price competitiveness by asserting in his written testimony, without elaboration, that FEI's installed base of residential customers "are not going to rip out their natural gas systems and replace them with electricity given that their systems are a sunk cost and natural gas is so much cheaper than electricity."²¹³ At the hearing, Dr. Booth admitted that he had made the statement without any data on: customer turnover, which he conceded would be "big" in FEI's case; the average age of the housing stock in FEI's service area; or, the age of appliance stock. This information is essential to determining when customers are faced with a decision on energy source. Another factor that Dr. Booth had not considered was the extent to which there are non-natural gas appliances available that are compatible with ductwork in people's homes.²¹⁴ The FBCU's Rebuttal Evidence explained why Dr. Booth's unsubstantiated argument was a fallacy.²¹⁵

126. Dr. Booth suggested that information on capital costs was "not relevant to the business risk, my assessment of the business risk of FEI."²¹⁶ He added: "All I'm doing here is sort of stating some facts about FEI's customer base. But as I've said repeatedly, I look upon the risk of FEI based upon its short-run ability to earn its allowed return and its long-run ability which is based upon whether it's a transitional or a foundational fuel, and that depends upon its cost-effectiveness."²¹⁷ The Commission should find that capital costs are relevant to the

²¹¹ Exhibit B1-9-6, FBCU Evidence, Appendix H, Company Evidence, section 5.3.

²¹² Exhibit B1-9-6, FBCU Evidence, Appendix H, Company Evidence, pp. 23-27; Exhibit B1-20, BCUC-FBCU IR 1.98.2 and 1.98.3. It is a deficit compared to Step 1 and a small advantage relative to Step 2.

²¹³ Exhibit C6-12, AMPC Evidence, Booth Evidence, p. 39, ll. 8-14.

²¹⁴ Tr 8, 1454, l. 22 – 1455, l. 14 (Booth).

²¹⁵ Exhibit B1-32, FBCU Rebuttal Evidence, Company Rebuttal Evidence, pp. 7-8.

²¹⁶ Tr 8, 1455, ll. 16-18 (Booth).

²¹⁷ Tr 8, 1452, ll. 15-21 (Booth).

assessment of cost-competitiveness, for both existing and new customers. The Commission should find that, when capital costs are considered, there has not been the type of seismic shift in cost competitiveness that would justify the Commission accepting Dr. Booth's recommendation to reduce FEI's common equity ratio.

(e) Non-Price Factors That Influence Energy Choice and Consumption

127. The competitiveness of natural gas *vis a vis* other energy sources is affected by non-price considerations as well. While customer energy choices historically tended to be driven by market factors such as energy price, accessibility, ease of use, reliability, and availability, customers are now also influenced by a desire to use energy efficiently and to adopt lower carbon and renewable energy sources.²¹⁸ Consumer choices regarding energy source can be dictated or influenced by government policy or legislation or be initiated by customers in response to attitudes about energy and any number of other considerations. The FBCU provided evidence, for instance, of municipal policies that favour the adoption of fuel sources other than natural gas.²¹⁹ Developers of multi-family dwellings install electric heating in favour of natural gas to conserve valuable building space that might otherwise be occupied by natural gas appliances.²²⁰ The Commission had recognized in the 2009 Decision the potential for the change in government policy favouring lower GHG emissions to cause potential customers not to opt for natural gas and persuade potential retrofitters to opt for electricity.²²¹ While the impact of customer attitudes and perceptions of energy is hard to quantify, it is clear from recent surveys and anecdotal evidence cited in Appendix H that the level of commitment among customers to natural gas has eroded.²²²

128. Dr. Booth made no mention in his business risk evidence of any of the non-price factors that affect the decisions of energy consumers. However, he conceded at the hearing

²¹⁸ Exhibit B1-9-6, FBCU Evidence, Appendix H, Company Evidence, pp. 27-37; Tr 3, 344, l. 21 – 345, l. 2 (Dall'Antonia).

²¹⁹ Exhibit B1-9-6, FBCU Evidence, Appendix H, Company Evidence, pp. 46-50.

²²⁰ Exhibit B1-9-6, FBCU Evidence, Appendix H, Company Evidence, p. 20-26.

²²¹ 2009 Decision, p. 37.

²²² Exhibit B1-9-6, FBCU Evidence, Appendix H, Company Evidence, p. 29.

that customer use and how customers respond to changes in price will also be affected by inherent customer attitudes that they hold towards the use of natural gas.²²³ He also agreed that another factor that will influence people's decisions is government policies, municipal policies and building codes and things of that nature.²²⁴

(f) Improved Cost Competitiveness Insufficient to Overcome Challenging Trends

129. Dr. Booth's conclusion that FEI's competitive position has "significantly improved relative to electricity"²²⁵ is essentially based on a single factor among many (i.e. operating cost competitiveness) that influence the choices of energy consumers. His failure to give meaningful recognition to other elements influencing competitiveness (e.g., capital costs, volatility, market trends, government policy and legislation) in his assessment of FEI's long-term risk is a critical shortcoming of his analysis. The influence of these countervailing factors is evident in the fact that demand for core residential and commercial space and water heating, as well as market share and the rate of customer additions, have continued to erode despite a number of years of lower natural gas commodity prices and somewhat higher electricity prices.²²⁶ The Commission should determine that change in relative operating costs since 2009 is not a basis to reduce FEI's common equity ratio as suggested by Dr. Booth.

E. SPACE AND WATER HEATING REMAINS CORE BUSINESS DESPITE "NEW INITIATIVES"

130. FortisBC's involvement in "New Initiatives" - Thermal Energy Services ("TES"), NGT fuelling service and Biomethane service – was raised as an issue in the context of FEI's business risk. The FBCU submit, for the reasons described below, that:

- TES initiatives undertaken by related corporate entities are not relevant to the assessment of the benchmark return; and

²²³ Tr 8, 1445, ll. 1-10 (Booth).

²²⁴ Tr 8, 1445, ll. 11-24 (Booth).

²²⁵ Exhibit C6-12, AMPC Evidence, Booth Evidence, p. 39.

²²⁶ Exhibit B1-20, BCUC-FBCU IR 1.97.1 and 1.100.2.

- Biomethane and NGT initiatives have no material impact at this time on FEI's long-term business risk due to their small size relative to the overall natural gas business.

(a) TES is Undertaken By a Separate Company

131. The benchmark utility is FEI, and it is to be considered on a stand alone basis.²²⁷ The TES business is being undertaken by FortisBC Alternative Energy Services Inc. ("FAES").²²⁸ Initiatives undertaken by other corporate entities do not impact FEI's business fundamentals that determine the risk to long-term capital recovery, irrespective of the common branding under the FortisBC name.²²⁹

(b) The Small Size of Biomethane and NGT Offerings Relative to Core Business

132. The new Biomethane and NGT offerings have the potential to increase throughput on the natural gas system. However, on any objective measure, FEI's core business is, and will remain, natural gas space and water heating:

- **Rate base:** FEI's rate base is approximately \$2.7 billion. FEI's rate base relating to biomethane upgrading is forecasted to be under \$3 million, only 0.1% of FEI's rate base for 2012. In the next 5 years, the biomethane-related rate base will still only represent approximately 1% of total rate base, all else equal.²³⁰ FEI's rate base relating to NGT is very small as well, as there have only been four approved fuelling stations. The prescribed investment for NGT under the *Greenhouse Gas Reductions (Clean Energy) Regulation* is \$62 million by 2017, which is still only approximately 3% of rate base.

²²⁷ Exhibit B1-9-6, FBCU Evidence, Appendix H, Company Evidence, p. 10.

²²⁸ By virtue of the requirements of section 60(1)(c) of the *Utilities Commission Act*.

²²⁹ Tr 3, 368, I. 13 – 369, I. 12 (Dall'Antonia); Tr 3, 372, II. 12-17 (Dall'Antonia).

²³⁰ Tr 3, 370, II. 3 – 8 (Dall'Antonia).

- **Throughput:** There is limited capacity to update the Biomethane program and forecasts call for a very small volume of over the next five years.²³¹ NGT volumes are currently forecasted at approximately 178,000 GJs, or 0.11% of total throughput for 2012. Even if NGT expands to its potential over the next 5 years, the volumes will still only represent 1.17% of total throughput.²³²
- **Customer count:** FEI is forecasted to have approximately 850,000 residential, commercial and industrial natural gas customers at the end of 2012. Only a tiny fraction of those customers take biomethane service. There are only four approved NGT customers at present, and even if NGT expands to its potential over the next 5 years it will still represent a very, very small percentage of FEI's total customers.

FEI is, for all intents and purposes, a pure-play natural gas distributor.²³³

133. Adding material NGT load would be a positive development for FEI and its customers, but growth in NGT volumes will not offset the present decline in residential revenues. NGT rates are lower on a per GJ basis than core customer rates (this is particularly true for customers that select Rate Schedule 25 for their CNG service). A single GJ sold to a NGT customer makes a lesser contribution to delivery margin than would be the case if that same GJ were sold for residential space and water heating load.²³⁴ As a result, Ms. McShane indicated: "Over the longer term [beyond the next five years], if there were to be further growth in the NGT business, it would be more likely to mitigate rising business risk due to trends in the core business than result in a reduction in business risk relative to where it stands today."²³⁵

²³¹ Tr 2, 238, l. 21 - 239, l. 5 (Stout); Tr 3, 316, ll. 7-13 (Stout); Tr 3, 368, l. 23 – 369, l. 11 (Dall'Anotnia).

²³² Exhibit B1-9-6, FBCU Evidence, Appendix H, Company Evidence, p. 13.

²³³ Tr 4, 534, l. 23 – 535, l. 3 (McShane).

²³⁴ Exhibit B1-20, BCUC-FBCU IR 1.8.2, 1.100.1 and 1.100.2.

²³⁵ BCUC-FBCU IR 1.46.1 and 1.8.2.

F. SUMMARY REGARDING LONG-TERM BUSINESS RISKS

134. FEI's operating environment remains largely unchanged since 2009. UPC, capture rates, and market share are all declining, adversely affecting throughput levels and representing a long-term challenge to cost recovery. Risks associated with policy and legislation that the Commission had considered in the 2009 Decision remain important. The shale gas boom and recent lower natural gas prices have not reversed or materially diminished the challenges faced in the residential and commercial sector. The Commission should find that FEI's overall long-term business risk is similar to what it had been in 2009.

PART SIX: FURTHER RATIONALE FOR MAINTAINING FEI'S CURRENT CAPITAL STRUCTURE

135. The evidence discussed above regarding FEI's business risks and capital market conditions supports FEI retaining its current capital structure (40% common equity/60% debt).²³⁶ In this Part, the FBCU focus on the following additional points regarding the appropriate capital structure for FEI:

- (a) FEI's existing common equity ratio is at the low end for maintaining a credit rating in the "A" category; reducing the common equity ratio to 35% as suggested by Dr. Booth would significantly increase the likelihood of a downgrade.
- (b) FEI's existing common equity ratio is consistent with the capital structures of other regulated utilities in Canada on a risk-adjusted basis, contrary to Dr. Booth's contention.
- (c) Dr. Safir appears to accept that a 40% common equity ratio is reasonable for FEI.

²³⁶ Ms. McShane concluded that "...in the context of the trend in business risk, FEI's deemed 40% common equity ratio remains at the lower end of a reasonable range." Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, p. 56.

(d) It is unnecessary and undesirable to reduce FEI's common equity ratio with the expectation that FEI can issue preferred shares as a short-term measure to resolve debt issuance problems, as suggested by Dr. Booth.

A. EXISTING CAPITAL STRUCTURE SUPPORTS CREDIT METRICS

136. Debt/equity ratios (i.e. the capital structure) are key credit metrics for regulated utilities, and the cash flows generated from earnings and return of capital impact other critical credit ratios that influence the credit rating.²³⁷ At a high level, entities with higher business risk should have a higher common equity ratio because debt financing magnifies business risk.²³⁸ The fact that FEI's overall credit metrics continue to pose a challenge provides objective evidence that the 40% common equity ratio approved in the 2009 Decision is still at the low end of a reasonable range for FEI.

137. The key evidence on FEI's credit metrics based on the existing common equity ratio is:

- Moody's rating for FEI is only one notch from the Baa rating category (equivalent to the BBB category on the DBRS/S&P rating scales).²³⁹
- FEI's Moody's ratings, based on the October 2012 report, in three of the five Financial Strength categories under its new methodology are non-investment grade, i.e., lower than Baa on a 12-18 month forward view basis. On a weighted average basis, including liquidity, FEI would be rated between Ba and Baa (between non-investment grade and low investment grade). Excluding liquidity, that is, based on the four quantitative credit metrics only, FEI's financial strength rating would be Ba (or BB on the DBRS/S&P rating scales), i.e., non-investment grade.²⁴⁰

²³⁷ Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, p. 57.

²³⁸ Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, p. 35.

²³⁹ Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, p. 58.

²⁴⁰ Exhibit to Exhibit B1-32, FBCU Rebuttal Evidence, McShane Rebuttal Evidence.

- The increase in allowed ROE and common equity ratio in the 2009 Decision did not result in an increase in either FEI's financial strength rating on a forward view basis or its debt rating being raised. Moody's October 2012 Credit Opinion for FEI provides, in part:

FEI's financial metrics are materially weaker than those of its A3 rated global gas utility peers such as Piedmont Natural Gas Company, Inc., Northwest Natural Gas Company, UGI Utilities and its sister company, FEVI. We recognize that FEI's weaker financial metrics are largely a function of the deemed equity and allowed ROE approved by the BCUC. In general, Canadian deemed equity ratios and allowed ROEs are low relative to those of other jurisdictions.

...

Notwithstanding FEI's low risk business profile, its financial profile is considered relatively weak at the A3 senior unsecured rating level. Accordingly, a sustained weakening of FEI's Cash Flow Interest Coverage below 2.3x and CFO pre-WC / Debt below 8% combined with a less supportive and predictable regulatory framework would likely result in a downgrade of FEI's rating. [Emphasis added.]

- Under Moody's 2006 methodology, the 60% deemed debt ratio adopted in the 2009 Decision was within the guidelines for an investment grade rating (Baa) on that factor. Under the new methodology, FEI's deemed 60% debt ratio is within the guideline range for a non-investment grade (Ba) rating category.
- Despite the increase in FEI's deemed common equity ratio to the current 40%, FEI's credit metrics still compare unfavourably at the current capital structure and ROE with those of its investor-owned Canadian gas and electric utility peers with which it competes for capital.²⁴¹
- FEI's credit metrics (as well as those of other Canadian utilities) continue to compare unfavourably to those of FEI's U.S. peers, with which FEI also competes

²⁴¹ Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, p. 61.

for capital.²⁴² For those U.S. gas distribution utilities with weather normalization clauses, decoupling or analogous mechanisms (flat monthly fee rate design), the median allowed common equity ratio was approximately 50% with a corresponding average awarded ROE of 10%.²⁴³

138. Dr. Booth stated that he was not concerned about a possible downgrade based on his recommendation.²⁴⁴ He reasoned that FEI's June 30, 2012 interest coverage ratio was 2.41x, which he characterized as being well above the 2.0x needed to access the MTN market under the terms of FEI's trust indenture. Dr. Booth also stated that the persistent decline in interest rates has allowed FEI to lower its embedded interest cost and enhance its coverage ratio. Dr. Booth's assertions do not stand up to scrutiny for two main reasons.

139. First, the level of interest coverage in excess of 2.0x is not a function of the persistent decline in interest rates, as Dr. Booth suggested. It is primarily the result of the increase in FEI's allowed ROE and equity thickness arising from the 2009 Decision. As noted by Dr. Booth, the June 30, 2012 SEDAR filed earnings coverage ratio is 2.41x. The June 30, 2009 SEDAR filed ratio prepared on a comparable basis was 1.99x. The 2009 embedded cost of debt was approximately 6.86% while the similar rate for 2012 is 6.80%. The decline in interest rates over time has not materially changed the embedded cost of debt. What has changed between the two periods is the allowed ROE and equity component of capital structure. The June 30, 2009 ratio had reflected a 35% common equity ratio and a blended allowed ROE of 8.55% (average of 2008 ROE of 8.62% and 2009 ROE of 8.47%). The June 30, 2012 ratio reflects the current 40% common equity ratio and an allowed ROE of 9.5%.²⁴⁵

140. Second, adopting the recommendation of Dr. Booth would likely restrict FEI's ability to issue long-term debt under the trust indenture. Dr. Booth made his assessment by simply noting that the SEDAR filed data is above 2x and then suggesting his recommendation

²⁴² Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, p. 61.

²⁴³ Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, p. 62.

²⁴⁴ Exhibit C6-12, AMPC Evidence, Booth Evidence, p. 103, ll. 5 to 11.

²⁴⁵ Exhibit B1-32, FBCU Rebuttal Evidence, Company Rebuttal Evidence, p. 11.

would not restrict issuance. However, Dr. Booth does not appear to have calculated the impact of his recommendation on the appropriate trust indenture test. The FBCU in rebuttal performed the correct analysis. Contrary to Dr. Booth's assertion, his recommendation would have an adverse impact and likely restrict debt issuance. Under the trust indenture, Dr. Booth's recommended 35% common equity ratio and 7.5% ROE would result in a coverage ratio of approximately 1.97x, which would not have met the threshold of 2.0x for the issuance of new debt.²⁴⁶

141. Mr. Dall'Antonia spoke out strongly against Dr. Booth's approach:

And again, getting back to this minimum cost argument, we think it's dangerous to try to set a capital structure so thin that you may not get - be able to actually issue debt. And the rating agency will look at the metrics. They'll look at a number of factors, but I would put to you that if you're in a situation where you struggle to issue debt, that may also be negatively viewed by the rating agency. So, from that basis, we don't want to be running right at the two-times. We do want to have a margin of comfort to issue debt.²⁴⁷

Mr. Dall'Antonia's comments, in addition to making practical sense, are also consistent with the decisions discussed previously that differentiate the Fair Return Standard from the lowest possible overall return. The Commission should find as a fact that the current common equity ratio is appropriate to ensure that FEI is able to maintain acceptable credit metrics.

B. COMPARISON WITH CAPITAL STRUCTURES OF OTHER UTILITIES

142. In the 2009 Application, the Commission had assessed the reasonableness of FEI's proposed 40% common equity ratio partly by reference to the capital structures of FEI's peers.²⁴⁸ FEI's existing common equity ratio is consistent with those of comparable utilities in Canada. Dr. Booth's recommendation of a 35% common equity ratio was below any of the comparables that he identified, despite the fact that FEI has higher business risk than most of those comparables.

²⁴⁶ Exhibit B1-32, FBCU Rebuttal Evidence, Company Rebuttal Evidence, pp. 10-12.

²⁴⁷ Tr 3, 351, II. 7-17 (Dall'Antonia).

²⁴⁸ 2009 Decision, p. 36.

(a) FEI More Risky Than Alberta and Ontario Electric Distribution Utilities

143. The FBCU submit that Dr. Booth's exclusion of Alberta and Ontario electricity distribution utilities from his group of comparables biased his sample downwards. Alberta and Ontario electricity distribution utilities are less risky than FEI and yet have 39% and 40% common equity ratios.²⁴⁹

(b) FEI More Risky Than Alberta and Ontario Natural Gas Distribution Utilities

144. There is general agreement that the major natural gas utilities in Canada should serve as comparables for FEI for the purposes of assessing FEI's capital structure. This group includes: ATCO Gas (an Alberta natural gas distribution utility with a 39% common equity ratio), Union Gas (an Ontario natural gas distribution utility with a 36% common equity ratio), Enbridge Gas Distribution (an Ontario natural gas distribution utility with a 36% common equity ratio) and Gaz Métro (a Quebec natural gas distribution utility with a 38.5% common equity ratio, plus deemed preferred shares). However, the FBCU and Ms. McShane disagree with Dr. Booth on what these comparables suggest about FEI's required common equity ratio. For the reasons set out below, the evidence on natural gas peers supports maintaining FEI's present capital structure.

Evidence on BC-Specific Risks

145. In recent years, BC has experienced a larger decline in space heating market share relative to Alberta, Ontario or Quebec.²⁵⁰ FEI faces greater competitive challenges, and higher long-term risk, compared to gas distribution utilities in Alberta and Ontario for several key reasons.

146. First, the Alberta and Ontario marketplaces are more favourable from the perspective of supply and infrastructure for natural gas, overall marketplace liquidity, the

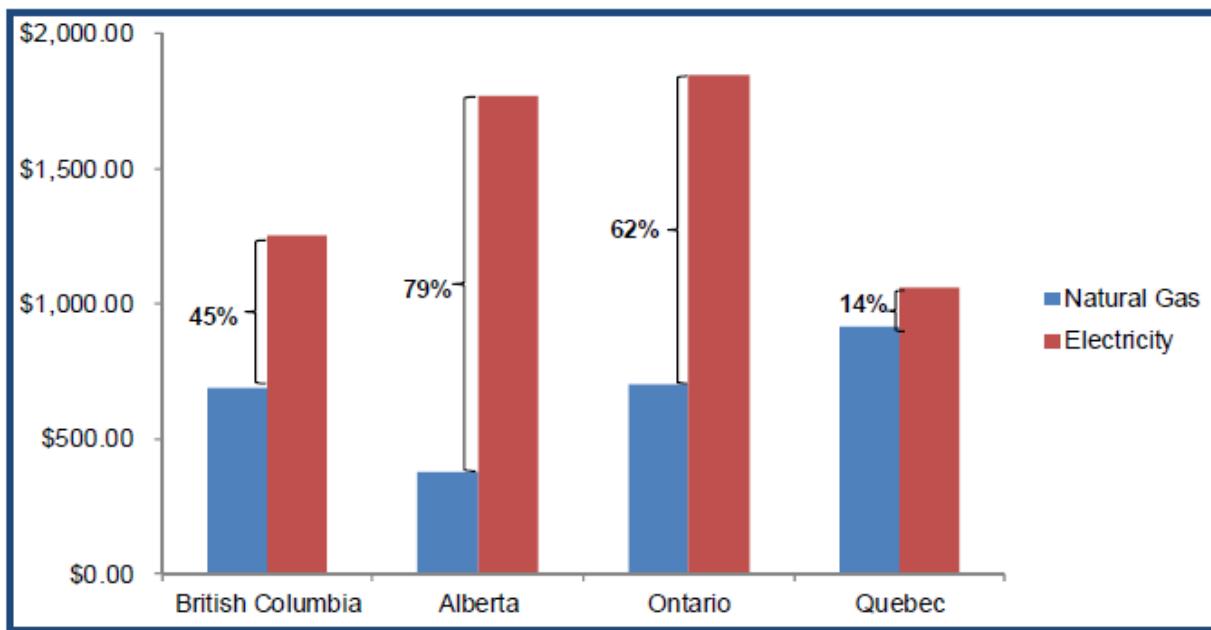
²⁴⁹ Exhibit B1-32, FBCU Rebuttal Evidence, McShane Rebuttal Evidence, p. 4.

²⁵⁰ Exhibit B1-9-6, FBCU Evidence, Appendix H, Company Evidence, pp. 10-11.

number of storage facilities and pipeline companies that operate in the regions, and overall gas flows.²⁵¹

147. Second, in terms of operating cost competitiveness, the following graph from Appendix H illustrates how FEI has a smaller operating cost advantage relative to electricity than Alberta and Ontario natural gas distribution utilities:²⁵²

Figure 12 – Provincial Comparison of Operating Cost Differential



The differential is largely the product of the fact that electricity costs in Alberta and Ontario are not heavily influenced by low embedded costs of “heritage hydroelectricity”.²⁵³ Utilities in the east have also seen greater benefits from shale gas than FEI has, by virtue of their proximity to the Marcellus Formation (a lower cost source of natural gas than the BC shale-gas basins) and much better access to highly liquid markets.²⁵⁴

²⁵¹ Exhibit B1-9-6, FBCU Evidence, Appendix H, Company Evidence, pp. 40-41.

²⁵² Exhibit B1-9-6, FBCU Evidence, Appendix H, Company Evidence, p. 20.

²⁵³ Exhibit B1-9-6, FBCU Evidence, Appendix H, Company Evidence, pp. 20-21.

²⁵⁴ Tr 2, 144, l. 26 – 145, l. 4 (Des Brisay); Tr 2, 147, ll. 21-25 (Des Brisay).

148. The growing prevalence of multi-family dwellings in the Lower Mainland, which affects both UPC (heating smaller dwellings) and attachments (lower capture rates for multi-family dwellings), is another factor that differentiates BC (unfavourably) from other provinces. The differential in housing type among the provinces is shown in Figure 19 in Appendix H.²⁵⁵ Dr. Booth had made this point before the AUC in 2011 in the context of advocating that Alberta's natural gas utilities require less common equity than FEI. As referenced above in this submission, Dr. Booth described "condification" as a "significant competitive pressure".

149. Third, as discussed previously, the Commission recognized in the 2009 Decision that government policy and legislation is a long-term risk factor for FEI. Among the provinces, BC is at the forefront of GHG reduction initiatives. The solutions put in place in BC, which include a focus on reducing the use of natural gas in heating applications, has a disproportionate impact on BC natural gas utilities.²⁵⁶ Mr. Dall'Antonia summarized how the policy and legislative environment in BC is more challenging for the BC natural gas utilities than in Alberta or Ontario:

And if you look at the situation in Alberta versus Ontario, I believe our self-sufficient targets are at the higher end, and if you look at their overall envelope of emissions, they had different levers to pull. We are generally a hydro driven province, so most of our electricity is considered clean. To get those efficiency reductions you've got to look at transportation, and I think you also have to look at the use of natural gas in the space and hot water heating, which is why we feel that the policies are still trending to a more negative position for our core markets.²⁵⁷

Dr. Booth acknowledged that the residential heating sector is a more likely target of emissions reductions policies than would be the case in Alberta or Ontario:²⁵⁸

That's correct. If you've already got a clean province that doesn't use coal, that doesn't use other dirty fuels, fuel oil, and you look around and say that we want to reduce greenhouse gases, then you're going to try and reduce them in areas

²⁵⁵ Exhibit B1-9-6, FBCU Evidence, Appendix H, Company Evidence, p. 30.

²⁵⁶ Exhibit B1-9-6, FBCU Evidence, Appendix H, Company Evidence, pp. 46-50.

²⁵⁷ Tr 2, 243, ll. 9-20 (Dall'Antonia).

²⁵⁸ Tr 8, 1483, l. 22 – 1484, l. 8 (Booth).

where other provinces are going to say this is what we're going to actually use more of rather than less of.

So I take your point and entirely agree that if provincially they say, well look, we've got to reduce greenhouse gases, there's no coal there to reduce, and heavy fuel oil there's less of it. So you're forced to look in areas that other provinces would be happy to use rather than reduce.

150. Dr. Booth also acknowledged that there is a different perception of natural gas in BC than in other provinces due to the prevalence of hydroelectricity in BC:²⁵⁹

True. Some people are going to perceive natural gas as being environmentally unfriendly because it's a carbon fuel. And that, I think, differentiates to some extent B.C. from the rest of Canada where -- in Ontario where -- viewed as a very good fuel, way better than coal.

151. The Commission should find that FEI faces higher long-term risk than natural gas distribution utilities in Alberta and Ontario.

Dr. Booth's Evidence Regarding Relative Risk Among Gas Distribution Utilities

152. Dr. Booth stated in his written evidence: "Overall I would judge FEI as warranting a common equity ratio of 37% in a range from 36% (Union and EGDI) to 38.5% (Gaz Métro) based on these comparators. However, I would recommend the same 35% I recommended in 2009. Capital market conditions are much improved from 2009 and it is difficult to see how the vast expansion in shale gas and consequent collapse in natural gas prices has done anything but reduce FEI's business risk."²⁶⁰ Dr. Booth's initial comparables analysis (that yielded 37%, which was then adjusted down to 35%) was biased downwards in two respects.

- First, notably absent from the above comparison was ATCO Gas, which has the highest common equity ratio of any of Dr. Booth's comparables at 39%. Dr. Booth and Ms. McShane agreed that FEI is at least as risky as ATCO Gas. Dr. Booth characterizes ATCO Gas as "in the same risk bucket, or perhaps slightly

²⁵⁹ Tr 8, 1445, ll. 5-10 (Booth).

²⁶⁰ Exhibit C6-12, AMPC Evidence, Booth Evidence, p. 43.

riskier" than FEI.²⁶¹ Ms. McShane regarded ATCO Gas as less risky than FEI due to FEI's higher market and competitive risks.²⁶² Either way, ATCO Gas' capital structure, with its 39% common equity ratio, supports the FEI's existing 40% common equity ratio.

Dr. Booth rationalized not giving any weight to ATCO Gas' 39% common equity ratio by saying that he regarded the 2009 AUC Decision 2009-216 that had increased ATCO Gas' common equity ratio from 38% to 39% as reflecting the extreme capital market conditions of 2009.²⁶³ Dr. Booth's characterization of AUC Decision 2009-216 was not accurate. The AUC awarded an across-the-board increase in common equity ratios for the Alberta utilities in Decision 2009-216, subject to company-specific circumstances, for both changed capital market conditions *and to maintain credit metrics*.²⁶⁴ Moreover, the AUC re-confirmed ATCO Gas' capital structure in the 2011 Generic Cost of Capital proceeding, well after Dr. Booth began asserting in various proceedings that capital markets had recovered from the depth of the 2008 crisis.²⁶⁵

- Second, in portraying Gaz Métro as having a common equity ratio of 38.5%, without reference to Gaz Métro's deemed preferred shares, Dr. Booth significantly understated the effective deemed common equity ratio of Gaz Métro. Dr. Booth had only recently testified before the Régie de L'énergie:

In the case of Gaz Metro, the 7.5% preferred share component is deemed and does not represent an increase in financial risk to the common shareholder. That is, there are no preferred share dividends that have to be paid prior to a dividend to the common shareholder. To all intents and purposes, Gaz Metro has a 46%

²⁶¹ Exhibit C6-12, AMPC Evidence, Booth Evidence, p. 42.

²⁶² Exhibit B1-26, BCPSO-FBCU IR 2.1.4

²⁶³ Exhibit C6-12, AMPC Evidence, Booth Evidence, p. 43.

²⁶⁴ AUC Decision, *2009 Generic Cost of Capital* Decision 2009-216, November 12, 2009, pp. 90 and 106 (located in Exhibit A2-3, Brattle Group Report, Appendix B).

²⁶⁵ AUC Decision, *2011 Generic Cost of Capital* Decision 2011-474, December 8, 2011 (located in Exhibit A2-3, Brattle Group Report, Appendix B).

common equity component at a cost equal to a weighted average of its allowed ROE and preferred share cost. In Dr. Booth's judgment, the additional 10% common equity component over Union and EGDI offsets Gaz Metro's higher business risk so that also allowing a higher ROE amounts to double counting. Consequently Dr. Booth does not recommend a premium to his estimate of a fair ROE for a benchmark utility.²⁶⁶

Compared to an effective common equity ratio of 46% for Gaz Métro, and still accounting for the fact that Gaz Métro is widely regarded as a more risky utility, FEI's 40% common ratio is appropriate.

153. Dr. Booth stated in his evidence that his support for a common equity ratio of 35%, below any of his comparables, reflected the impact of shale gas on FEI's business risk. This rationale is illogical. Dr. Booth had presented evidence on shale gas, as well as improved financial conditions, in other proceedings relating to the very same comparables that he cited in this GCOC proceeding. Notably:

- Dr. Booth had contended in a recent Union Gas proceeding before the Ontario Energy Board ("OEB") that Union Gas' business risks had declined since 2006 with the development of shale gas, referring to it as a "game changer".²⁶⁷ He had recommended a common equity ratio for Union Gas of 35%, down from 36%. The OEB had confirmed Union Gas' common equity ratio at 36%, stating that it "is of the view that there is no evidentiary basis to support a reduction in deemed common equity from the existing 36% to 35%."²⁶⁸ This determination is notable because there is general agreement among the FBCU and Dr. Booth that the Ontario utilities have been much more favourably affected by the development of shale gas than FEI has been.²⁶⁹

²⁶⁶ Exhibit B1-50, p. 22, Laurence Booth, Response to Régie Information Request 3.1, August 15, 2011.

²⁶⁷ Exhibit B1-50, p. 24, Evidence of Laurence D. Booth, *Business Risk and Capital Structure [sic] For Union Gas*, (EB-2011-0210, May 2012).

²⁶⁸ Ontario Energy Board, *Union Gas Limited* Decision and Order EB-2011-0210, October 24, 2012, p. 50 (referenced in Exhibit B1-32, FBCU Rebuttal Evidence, McShane Rebuttal Evidence, p. 2-3 (footnote 2)).

²⁶⁹ Tr 2, 144, l. 26 – 145, l. 4 (Des Brisay); Tr 2, 147, ll. 21-25 (Des Brisay).

- The Régie's 2011 decision with respect to Gaz Métro²⁷⁰ had noted Dr. Booth's emphasis on shale gas: "According to Dr. Booth, Gaz Métro's risk has decreased since the Régie's last decision in 2009. (footnote omitted) He argued that shale gas development is an important change which has had the effect of increasing supply, and further stated that lower natural gas prices have increased its competitiveness in relation to oil and electricity."²⁷¹ The Régie concluded that "In the Régie's view, Gaz Métro bondholders and unitholders' perceptions of long-term risk are very similar today to what they were in 2009."²⁷²

Dr. Booth conceded that no Canadian gas local distribution utility that has had its capital structure reviewed since 2009 has had its allowed common equity ratio reduced due to the development of shale gas or improved financial conditions.²⁷³

154. The trend towards higher common equity ratios is also reflected in the NEB's approval of increases in the allowed common equity ratios for a number of the NEB-regulated pipelines in the range of 4% to 5%.²⁷⁴

(c) 35% Common Equity For Everyone

155. It became apparent at the hearing that, whatever analysis Dr. Booth included in his written evidence to support his recommendation, Dr. Booth's approach boils down to always recommending a 35% common equity ratio for every major Canadian utility except Gaz Métro. He reiterated this statement a number of times, indicating that he has been recommending 35% for utilities for at least the past 10 years.²⁷⁵

²⁷⁰ Régie de l'énergie du Québec, Décision *Demande de modifier les tarifs de Société en commandite Gaz Métro à compter du 1er octobre 2011*, D-2011-182, November 2011, English Version ("Gaz Métro Decision") (located in Exhibit A2-3, Brattle Group Report, Appendix B).

²⁷¹ Gaz Métro Decision, , para. 230.

²⁷² Gaz Métro Decision, para. 234.

²⁷³ Tr 8, 1431, l. 20 – 1432, l. 6 (Booth).

²⁷⁴ Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, p. 64.

²⁷⁵ Tr 8, 1418, l. 24 – 1419, l. 14 (Booth).

156. It was evident from Dr. Booth's explanation of this approach to Commissioner Harle that the starting point for his 35% was the 30% common equity ratios of low risk natural gas pipelines set in 1994 (i.e. 18 years ago). He also, it appeared, accounted for the common equity ratios of Alberta electric transmission utilities and Ontario gas distribution utilities as they stood in the mid-2000s:

So at one point we went down to 25 percent, 28 percent but in '94 the NEB harmonized all of those at 30 percent. I would regard in the current environment 30 percent as being the lowest, and it's feasible for the pipelines because they are not subject to any interest coverage restriction. The only restriction in the pipelines is generally they can't have more than 75 percent debt. So 30 percent is feasible for the pipelines. TransCanada has obviously got a lot riskier and these common equity ratio has moved up. So I used that as the floor.

I then look at the electric transmission, and the AUC has moved that up. They moved it up to 32 percent for taxable transmission, 34 percent for nontaxable transmission and then in 2009 they moved those up a little bit more. So you've got a floor of around 35 percent based upon the AUC's decision, 30 percent for natural gas transmission based upon the NEB which subsequently moved that up. 36 percent for Union Gas and Enbridge Gas. And these are all for big utilities. They are the big utilities that can access the capital markets.²⁷⁶

As discussed previously, the NEB, AUC and OEB have increased common equity ratios for major utilities since the period of time that Dr. Booth was referencing for a variety of reasons. Dr. Booth's recommendation of a 35% common equity ratio for virtually all major Canadian utilities has not kept up with changing times and should be rejected.

C. DR. SAFIR'S APPROACH TO CAPITAL STRUCTURE

157. Dr. Safir's evidence on how he approached capital structure was, with all due respect, confusing and contradictory on key points. He, like the other witnesses²⁷⁷, appeared to accept that there is a relationship between the cost of equity and the percentage of debt in a utility's capital structure.²⁷⁸ Dr. Safir's written evidence suggested that he had estimated the fair ROE without any specific reference to the allowed capital structure. At the hearing,

²⁷⁶ Tr 8, 1637, l. 9 – 1641, l. 9 (Booth).

²⁷⁷ E.g. Exhibit B1-9-6, FBCU Evidence, Appendix G, Vander Weide Evidence, pp. 11-12.

²⁷⁸ Exhibit C4-11, FBCU-ICG (Safir) IR 1.16.8 and 1.16.9; Tr 7, 1553, l. 11- 1154, l. 15.

however, he indicated that he accepted a 40% common equity ratio for the purposes of this proceeding.²⁷⁹ In the end, Dr. Safir's evidence does not provide any basis to depart from the current common equity ratio.

D. PREFERRED SHARES

158. Dr. Booth suggested in his evidence and again in his Opening Statement, in effect, that if the 35% common equity ratio that he recommends is insufficient to maintain adequate credit metrics, then the solution is for FEI to issue preferred shares. The FBCU submit that there are two main reasons why using preferred shares in place of the existing common equity, in the manner Dr. Booth advocates, is undesirable.

159. First, even if FEI's common equity ratio were to remain the same and the preferred shares were replacing debt, a preferred share component in the capital structure may or may not enhance certain credit ratios and reduce the cost of debt. Preferred shares are given varying degrees of debt and equity credit by the debt rating agencies, depending on features such as whether the dividends are cumulative, whether they have retraction or redemption options, whether they are convertible into common shares, etc. The market for preferred shares is virtually limited to five-year rate reset preferred shares, the characteristics of which make these shares most appropriately viewed as a replacement for debt. In any case, the cost of preferred shares will be higher than the cost of debt, as preferred shares are both subordinate to debt and not tax deductible.²⁸⁰ The overall cost of fixed obligations – i.e. debt and preferred shares - would likely be higher with preferred shares in the capital structure on an after-tax basis.²⁸¹

160. Second, the introduction of preferred equity into the capital structure has the same effect on the cost of equity as adding debt. Since preferred shares rank in priority above common equity, the introduction of preferred shares only creates more financial risk from the

²⁷⁹ Tr 7, 1155, II. 5-19(Safir); FBCU-ICG (Safir) IR 1.16.10.

²⁸⁰ Exhibit B1-20, BCUC-FBCU (McShane) IR 1.79.5.

²⁸¹ Exhibit B1-20, BCUC-FBCU (McShane) IR 1.14.6.

perspective of the common equity holder and raises the cost of common equity.²⁸² In other words, the substitution of preferred shares for the existing 5% common equity would (all else equal) increase the required ROE due to the increased financial risk to the common equity shareholder.

161. Although Canadian holding companies like Fortis Inc. or CU Inc.²⁸³ have issued preferred shares from time to time, it is now very uncommon for an operating utility to issue preferred shares; Mr. Engen was not aware of any regulated utility company directly issuing preferred shares in the last 10 years.²⁸⁴ The bulk of the recent issuances of five-year reset preferred shares by holding companies have been undertaken as a short-term means of adding a form of equity to their balance sheet during a period of high capital expenditures that can challenge credit metrics; the preferred shares are substituted for debt, not common equity.²⁸⁵ Once the assets being financed are in service, and begin to produce cash flow, common equity will increase via retained earnings and the preferred shares can be redeemed.²⁸⁶

162. There are a variety of reasons for why utility issuers of preferred debt are uncommon. The favourable tax treatment extended to utility preferred shares under the *Public Utility Income Tax Transfer Act* (PUITTA) was discontinued in the mid 1990s.²⁸⁷ Operating utilities, more so than holding companies, need to be able to depend on a market being open when they need to raise capital. The preferred share market generally has frequently been closed to new issues of any kind. There has been very limited market demand for perpetual preferred shares. The principal demand has been for five-year rate reset issues, the cost of which is subject to change every five years. The dividend is only fixed for five years, after which

²⁸² Exhibit B1-20, BCUC-FBCU IR 1.14.6.

²⁸³ Exhibit B1-20, BCUC-FBCU (McShane) IR 1.80.3.

²⁸⁴ Exhibit B1-20, BCUC-FBCU (Engen) IR 1.14.3.

²⁸⁵ Exhibit B1-20, BCUC-FBCU (McShane) IR 1.80.3.

²⁸⁶ Exhibit B1-20, BCUC-FBCU (McShane) IR 1.79.3.

²⁸⁷ Exhibit B1-20, BCUC-FBCU (McShane) IR 1.79.2

it is reset at a specified spread to the five-year Canada bond.²⁸⁸ The fact that rates will change every five years gives rise to price risk.

163. As Ms. McShane noted, if FEI were to exhibit an ongoing inability to meet the 2X coverage test, that fact, in and of itself, would likely call its existing debt ratings into question, potentially leading to a preferred share rating lower than that actually required to issue preferred shares.²⁸⁹

164. Ms. McShane also concluded that, while short-term preferred shares might be viewed as a temporary solution to an immediate inability to raise long-term debt, they are effectively a form of relatively high cost debt and will be viewed by both bond investors and debt rating agencies as such. They are not a substitute for a reasonable common equity ratio. The optimal solution to maintain access to capital on reasonable terms and conditions is required to allow a reasonable common equity ratio, i.e., to maintain the current 40%.²⁹⁰

E. CONCLUSION REGARDING CAPITAL STRUCTURE FOR FEI

165. In summary, FEI's 40% common equity/60% debt capital structure remains reasonable in light of FEI's business risk, Moody's higher credit metrics expectations for maintaining FEI's existing rating, and the common equity ratios of other Canadian utilities.²⁹¹ Maintaining the existing capital structure is important from the perspective of financial integrity, capital attraction and also comparability with FEI's comparable risk peers.²⁹²

PART SEVEN: THE APPROPRIATE ROE FOR FEI

166. In this Part, the FBCU address the appropriate ROE for FEI. The FBCU filed expert evidence of Ms. McShane and Dr. Vander Weide estimating FEI's cost of equity and a fair ROE for FEI. Ms. McShane based her estimates of a fair benchmark ROE on two DCF tests, three

²⁸⁸ Exhibit B1-20, BCUC-FBCU (McShane) IR 1.79.3.

²⁸⁹ Exhibit B1-32, FBCU Rebuttal Evidence, McShane Rebuttal Evidence, p. 8.

²⁹⁰ Exhibit B1-32, FBCU Rebuttal Evidence, McShane Rebuttal Evidence, p. 8.

²⁹¹ Exhibit B1-20, BCUC-FBCU IR 1.49.6.

²⁹² Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, p. 39.

Equity Risk Premium (ERP) tests (including a variant on the CAPM), and the traditional comparable earnings analysis. Dr. Vander Weide relied on two DCF tests and two ERP tests. They provided extensive written evidence, responses to information requests, and Rebuttal Evidence to support the methodologies that they employed. The FBCU make the following points with respect to the determination of a fair ROE for FEI:

- (a) Multiple tests should be used to estimate the fair ROE for FEI, as no single test is a “silver bullet”;
- (b) The Commission should give weight to estimates based on U.S. comparables and conclude that no adjustments to the estimates are required;
- (c) The Commission should continue to give significant weight to the DCF approach, and should accept the DCF estimates of Ms. McShane and Dr. Vander Weide;
- (d) The Commission should give some weight to equity risk premium tests, but the CAPM results used by Dr. Booth and Dr. Safir are unreasonably low;
- (e) An allowance for flotation costs added to the results of market-based tests is appropriate and consistent with past decisions;
- (f) The Commission should give even more weight to Ms. McShane’s comparable earnings analysis than it did in the 2009 Decision; and
- (g) Returns forecasted by pension plan actuaries are of limited relevance in determining FEI’s cost of equity.

The Commission should find that a reasonable estimate of a fair ROE for FEI in current market conditions, based on all of the evidence, is 10.5% on a 40% common equity ratio.

A. IMPORTANCE OF APPLYING MULTIPLE TESTS TO DETERMINE COST OF EQUITY

167. Employing multiple tests to estimate FEI’s required ROE is a best practice that has been recognized by the Commission, is acknowledged by the Brattle Group, and has been

applied by Ms. McShane, Dr. Vander Weide and Dr. Safir. Mr. Coyne also agrees with the use of multiple models.²⁹³ Dr. Booth is alone in employing one primary test. The CAPM, a type of equity risk premium test, is not the “silver bullet” that Dr. Booth portrays, so as to justify his sole reliance on the results of that test.

(a) Using Multiple Tests is Recognized as Best Practice

168. The Commission had employed multiple tests in both the 2006 and 2009 Decisions.²⁹⁴ The Commission had stated in its 2009 ROE Decision:²⁹⁵

The Commission Panel has considered the three approaches to determining ROE for a regulated utility and agrees with Terasen that it should take all three into account when establishing an ROE. The Commission Panel agrees that the DCF and ERP are the most common approaches used by regulatory agencies in the US and that CAPM has been widely used in Canada in the period since 1994. The Commission Panel has seen no evidence that suggests: i) it should ignore the fact that the Commission gave the DCF approach weight in the 2006 ROE Decision, or ii) that would persuade it to depart from the Commission’s finding in that decision that the CE methodology had not outlived its usefulness when it commented: “However, the Commission Panel is not convinced that the CE methodology has outlived its usefulness, and believes that it may yet play a role in future ROE hearings.”

169. The Brattle Group agreed with using multiple approaches, stating: “Analysts have a dizzying array of potential models at their disposal, and it must be acknowledged that cost of capital estimation continues to be as much art as it is science. The generally recommended “best practice” is therefore to look at a totality of information from alternative methodologies.”²⁹⁶ The Brattle Group noted that analysts typically rely on the results from at least two estimation models,²⁹⁷ which is what Ms. McShane and Dr. Vander Weide have done.

²⁹³ Tr 5, 796, l. 25 – 797, l. 5 (Coyne).

²⁹⁴ 2006 Decision, pp. 52 and 55; 2009 Decision, pp. 44 and 45.

²⁹⁵ 2009 Decision, pp. 44 and 45.

²⁹⁶ Exhibit A2-3, Brattle Group Report, pp. 3-4.

²⁹⁷ Exhibit A2-3, Brattle Group Report, p. 5.

170. Ms. McShane observed that each of the traditional tests²⁹⁸ - Equity Risk Premium (including, but not limited to, the CAPM), DCF and Comparable Earnings - is based on different premises and brings a different perspective to the fair ROE. Ms. McShane made the obvious point that employing multiple tests provides greater confidence that the allowed ROE is within a reasonable range:

None of the individual tests is, on its own, a sufficient means of ensuring that all three requirements of the fair return standard are met; each of the tests has its own strengths and weaknesses. Individually, each of the tests can be characterized as a relatively inexact instrument; no single test can pinpoint the fair return. Changes to the inputs to individual tests may have different implications depending on the prevailing economic and capital market conditions. These considerations emphasize the importance of reliance on multiple tests.²⁹⁹

171. Dr. Vander Weide similarly expressed the view that “[t]here is noise in all estimates of the cost of equity, whether you’re looking at DCF, risk premium, ex post risk premium, CAPM.” All of the approaches involve estimates of unknown quantities. In his view, “the only way around that is to provide several estimates and look at the reasonableness of the results, and then say, ‘Well, if we have to base our decision on evidence, let’s use the best evidence that we have.’”³⁰⁰

172. Although the FBCU disagree with how Dr. Safir applied his CAPM and comparable earnings tests, his approach of giving weight to the results of multiple models is reasonable.

(b) Dr. Booth’s Sole Reliance on the CAPM is Unwarranted

173. Dr. Booth was alone among the experts, and is at odds with the Commission’s past approach, in relying on a single test – the CAPM - to estimate a fair ROE for FEI. Neither Ms. McShane, nor Dr. Vander Weide took issue with the validity of the CAPM as a theoretical

²⁹⁸ The Commission Panel recounted in the 2006 Decision, at p. 45, the past use of comparable earnings, and the development of DCF, ERP and CAPM approaches starting in the 1970s.

²⁹⁹ Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, p. 66.

³⁰⁰ Tr 6, 1045, II. 3-11 (Vander Weide); see also Tr 6, 1026 II. 1-7 (Vander Weide).

model. Regardless of the merits of the CAPM as a theory, regulators (including the Commission) and experts recognize that its application requires judgment and is thus subject to uncertainties and varied results like any other model.

174. Ms. McShane, for instance, stated that the challenges associated with the CAPM “are of a sufficient magnitude to warrant the conclusion that it is not inherently superior to other approaches to the estimation of a fair return, particularly in light of the adjustments to the theoretical CAPM necessary to apply it to the utility industry.”³⁰¹ Ms. McShane used a variant of the CAPM in her determination of a fair ROE for FEI, but only in tandem with other methodologies. Dr. Vander Weide undertook a CAPM analysis but gave his CAPM results no weight as a result of the flaws he identified, relying instead on two alternative ERP approaches and the DCF test.³⁰²

175. The Commission in 2009 had declined to place a preponderance of weight on the CAPM to the exclusion of other models, recognizing the challenges with the CAPM and the need for adjustments. It had stated:³⁰³

...that CAPM is based on a theory that can neither be proved nor disproved, relies on a market risk premium which looks back over nine decades and depends on a relative risk factor or beta. The fact that the calculated beta for PNG (considered by Dr. Booth to be the most risky utility in Canada) was 0.26 in 2008 causes the Commission Panel to consider that betas conventionally calculated with reference to the S&P/TSX are distorted and require adjustment.

The Commission Panel will give weight to the CAPM approach, but considers that the relative risk factor should be adjusted in a manner consistent with the practice generally followed by analysts so that it yields a result that accords with common sense and is not patently absurd.

176. The OEB also recently rejected Dr. Booth’s position that “overwhelming weight” should be given to a CAPM estimate, stating:³⁰⁴

³⁰¹ Exhibit B1-20, BCUC-FBCU (McShane) IR 1.65.4.

³⁰² Exhibit B1-9-6, FBCU Evidence, Appendix G, Vander Weide Evidence, p. 44.

³⁰³ 2009 Decision, p. 45.

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

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

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

177. The rationale for limiting the Commission's reliance on the CAPM, as opposed to giving it the overwhelming weight advocated by Dr. Booth, remains compelling. The shortcomings with the application of the CAPM in the utility context are discussed later in the context of discussing Dr. Booth's application of the CAPM.

(c) Summary Regarding Use of Multiple Methodologies

178. All approaches to estimating a fair ROE require judgment in their application, the extent of which depends on the prevailing state of the capital markets. Any individual cost of equity model implicitly ascribes simplicity to a cost whose determination is inherently complex.³⁰⁴ No single model is powerful enough on its own to produce "the number" that will meet the Fair Return Standard. Applying a range of tests along with informed judgment, as Ms. McShane and Dr. Vander Weide have done, best ensures that the Fair Return Standard is met.

³⁰⁴ Ontario Energy Board, Report of the Board on the Cost of Capital for Ontario's Regulated Utilities, EB-2009-0084, December 11, 2009 ("OEB Cost of Capital Decision"), pp. 45-46 (located in Exhibit A2-3, Brattle Group Report, Appendix B).

³⁰⁵ Exhibit A2-3, Brattle Group Report, p. 3.

The Commission had employed multiple tests in both the 2006 and 2009 Decisions.³⁰⁶ FEI submits that it should continue to do so in this proceeding, giving significant weight to the results of the tests undertaken by Ms. McShane and Dr. Vander Weide.

B. SELECTION OF COMPARABLES

179. The application of DCF test, equity risk premium models (including the CAPM), and the traditional comparable earnings analysis all require reference to comparables. This makes the selection of comparables an important factor in the estimation of the fair ROE for FEI. There is a general preference for using Canadian data, wherever possible. Ms. McShane and Dr. Vander Weide both employed that approach. However, Ms. McShane, Dr. Vander Weide and Dr. Safir all augmented their Canadian data with U.S. data in applying their respective DCF analyses and equity risk premium models. Although Dr. Booth resisted reliance on U.S. comparables, his testimony included significant analysis of U.S. data. The FBCU submit that:

- there are sound reasons for using U.S. data;
- U.S. utilities can be appropriate comparables;
- the practice of referencing U.S. data is supported by past decisions; and
- no adjustments to U.S. returns are necessary.

(a) Augmenting Canadian Data

180. One key advantage of using U.S. utility data is that it augments the relatively limited data available for Canadian utilities. Dr. Vander Weide provided several reasons as to why he used U.S. utility data in preparing his estimates of the fair ROE for FEI:

- First, the U.S. utility groups include a significantly larger sample of companies with traditional utility operations than the Canadian groups.³⁰⁷ There are no

³⁰⁶ 2006 Decision, pp. 52 and 55; 2009 Decision, pp. 44 and 45.

Canadian natural gas utilities with publicly-traded stock.³⁰⁸ Two of the five companies in the BMO Canadian utilities group also have significant investments in unregulated operations.³⁰⁹ By contrast, Dr. Vander Weide's large U.S. utility group has 83 percent of their assets devoted to regulated utility operations, and the second U.S. group has 93 percent of their assets devoted to regulated utility operations.³¹⁰

- Second, reasonable estimates of expected growth rates are available for these companies, whereas the same data are not available for the Canadian utilities;³¹¹ and
- Third, historical data for the U.S. utilities are available for a much longer period of time than for the Canadian utilities.³¹²

Ms. McShane also referenced the paucity of publicly-traded Canadian companies whose operations are largely regulated. She also observed that those few companies are very heterogeneous in terms of operations and size, making it impossible to select a sample of Canadian companies that would be considered directly comparable in risk to any specific Canadian utility.³¹³ Neither Dr. Booth, nor Dr. Safir, took issue with the fact that using U.S. comparables provides a much broader pool of data from which to estimate the utility cost of equity. Dr. Vander Weide stated that information on U.S. allowed ROEs and equity ratios also provides an independent test of the fairness of the allowed ROEs and equity ratios for Canadian utilities such as FEI.³¹⁴

³⁰⁷ Tr 6 969, I.5 – 970, I. 2 (Vander Weide).

³⁰⁸ Exhibit B1-9-6, FBCU Evidence, Appendix G, Vander Weide Evidence, p. 15; Tr 6, 1021, II. 6-18 (Vander Weide).

³⁰⁹ Exhibit B1-9-6, FBCU Evidence, Appendix G, Vander Weide Evidence, p. 17 and Tr 6, 1021, I. 23 – 1022, I. 23 (Vander Weide).

³¹⁰ Tr 6, 1021, I. 23 – 1022, I. 23 (Vander Weide).

³¹¹ Exhibit B1-20, BCUC-FBCU (Vander Weide) IR 1.83.1.

³¹² Exhibit B1-20, BCUC-FBCU (Vander Weide) IR 1.83.2.

³¹³ Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, p. 73.

³¹⁴ Exhibit B1-9-6, FBCU Evidence, Appendix G, Vander Weide Evidence, p. 45.

(b) U.S. Utilities Can Be Appropriate Comparables

181. Ms. McShane and Dr. Vander Weide agreed that U.S. companies can be appropriate comparables for use in the various models to estimate a fair ROE for FEI because:

- Generally speaking, the operating, regulatory and business environments for U.S. regulated companies and Canadian utilities are similar. For instance, U.S. natural gas and electric utilities rely on essentially the same natural gas and electric technologies to deliver their services to the public as natural gas and electric utilities in Canada. The economics of natural gas and electric transmission and distribution is similar in the U.S. and Canada. U.S. natural gas and electric utilities are regulated under similar cost-based regulatory structures and fair rate of return principles as Canadian utilities.³¹⁵
- Canadian and U.S. capital markets are significantly integrated, and the cost of capital environment is similar.³¹⁶ In Ms. McShane's words, U.S. market data generally are relevant because of "the close relationship between the two economies, the fact that the U.S. has historically been the single largest alternative destination for Canadian portfolio investment (See Appendix A, p.A-15) and the similarity between historical Canadian and U.S. equity market returns and equity return volatility".³¹⁷

182. Dr. Safir acknowledged the integration of the two capital markets and economies. He relied on U.S. utilities for both his CAPM and DCF analyses, and on U.S. unregulated companies for his comparable earnings analysis. With respect to the CAPM, Dr. Safir stated:³¹⁸

³¹⁵ Exhibit B1-9-6, FBCU Evidence, Appendix G, Vander Weide Evidence, p. 20; Tr 6, 1021 ll. 6-18. Dr. Vander Weide's explanation of the relevance of U.S. allowed returns to the cost of capital of the benchmark FEI is discussed below in the context of the comparable earnings test.

³¹⁶ Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, p. 74. Exhibit B1-9-6, FBCU Evidence, Appendix G, Vander Weide Evidence, pp. 19-24.

³¹⁷ Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, p. 80.

³¹⁸ Exhibit C4-9, ICG Evidence, Safir Evidence, p. 19, ll. 3-10.

Q22 Should the U.S. CAPM estimate be given any weight in the construction of a CAPM equity return recommendation for the Canadian benchmark utility?

A22 Yes it should. The economies and capital markets of both the United States and Canada are closely aligned. Canadian firms routinely borrow and invest on both sides of the border as do U.S. companies. As a result, U.S. economic trends and values should have an influence on the capital and rate of return requirements of the Canadian utility sector and therefore the appropriate equity rate of return afforded the Canadian "benchmark" utility.

He made no adjustments to his U.S. results for the fact that the tests are derived from U.S. companies and data.

183. Dr. Booth conceded that there is a high degree of integration between the Canadian and U.S. markets,³¹⁹ but still devoted considerable energy to distinguishing Canada from the U.S. Ms. McShane noted in her Rebuttal Evidence that Dr. Booth was being inconsistent.³²⁰

As a general comment, I find Dr. Booth's concerns with the use of U.S. utilities somewhat perplexing, given that (1) Dr. Booth's DCF estimates of the cost of equity for the U.S. and Canadian markets at pages 9-10 of Appendix C are similar; (2) he states at page 86 that his estimate of the utility equity risk premium using the U.S. S&P gas and electric index is broadly consistent with his Canadian utility risk premium range; (3) he gives weight to U.S. evidence in deriving his equity market risk premium for Canada (page 74); (4) he shows that the most recent Fernandez market risk premium surveys indicate virtually identical equity risk premiums in the two countries (Appendix B, page 14); and (5) he agrees that one can select a sample of utilities from the U.S. universe that is comparable to the overall population of utilities in Canada (Appendix C, page 7).

184. The argument traditionally raised against relying on U.S. utility comparables, which was raised again in this proceeding by Dr. Booth, is that Canadian utilities have lower regulatory risk than U.S. utilities because Canadian utilities have more deferral accounts and revenue stabilization mechanisms and there is greater regulatory lag in the U.S. Ms. McShane did not disagree that BC is a supportive regulatory jurisdiction in terms of constructive

³¹⁹ Exhibit C6-15, BCUC-AMPC (Booth) IR 1.32.2.

³²⁰ Exhibit B1-32, FBCU Rebuttal Evidence, McShane Rebuttal Evidence, p. 24, II. 639-648.

regulatory mechanisms, considering the use of a forward test year, and the availability of deferral accounts that mitigate short-term forecasting risk, resulting in relatively stable year-to-year earnings.³²¹ However, Ms. McShane and Dr. Vander Weide stated:

- there are broad similarities between the regulatory environments of U.S. and Canadian utilities; and
- U.S. utilities are characterized by varying levels of business risk, and they are not uniformly higher risk than Canadian utilities on a total risk basis.³²²

185. In terms of broad similarities between the U.S. and Canadian regulatory environments, Ms. McShane observed that utilities in both countries are governed by the Fair Return Standard and the three requirements of comparable returns, financial integrity and capital attraction that the standard entails.³²³ Ms. McShane and Dr. Vander Weide stated that the U.S. regulatory environment is generally characterized by widespread use of regulatory mechanisms that are viewed as credit supportive, including accounts that provide for recovery of gas costs for gas utilities and fuel and purchased power costs for electric utilities, revenue decoupling, weather normalization accounts, trackers for new infrastructure investment (gas utilities), mechanisms for the recovery of bad debt expenses, and the ability to include CWIP in rate base. Cost adjustment and revenue stabilization mechanisms used by Canadian and U.S. utilities do not address longer-term risks in any event. Many U.S. utilities, including all of the companies in Ms. McShane's U.S. utility sample, operate in more than one regulatory jurisdiction, which diversifies their regulatory risk.³²⁴

186. It was suggested to Dr. Vander Weide that past utility bankruptcies in the U.S., and the ability of Canadian utilities to earn their allowed return on a consistent basis, demonstrated that U.S. utilities were higher risk than Canadian utilities. This does not follow.

³²¹ Exhibit B1-20, BCUC-FBCU (McShane) IR 1.54.4.

³²² Exhibit B1-20, BCUC-FBCU (McShane) IR 1.54.2 and Exhibit B1-24, BCUC-FBCU (McShane) IR 2.161.2.1.

³²³ Exhibit B1-20, BCUC-FBCU (McShane) IR 1.54.2.

³²⁴ Exhibit B1-20, BCUC-FBCU (McShane) IR 1.54.2; Exhibit B1-9-6, FBCU Evidence, Appendix G, Vander Weide Evidence, p. 21.

Dr. Vander Weide stated that he had examined utility bankruptcies in the U.S. There were approximately six or seven such bankruptcies in the U.S. in the past 10 to 20 years, of which two were in California and associated with a failed attempt to introduce competition into the market for electricity in the early 2000s. Two were associated with nuclear power projects in the 1990s, which are totally different from a gas distribution utility from a risk perspective. Others were associated with deregulated investments that have no bearing on the utilities at issue.³²⁵ Dr. Vander Weide concluded that the U.S. utility bankruptcies “were associated with events that have either changed or that the likelihood of recurring is close to zero.”³²⁶

187. Moreover, Dr. Vander Weide noted that his U.S. utility sample groups consist of utilities that have similarly good prospects of earning their allowed return. The ability of the utilities in Dr. Vander Weide’s first group to earn their allowed return was implicitly accounted for in Dr. Vander Weide’s decision to select utilities that held a high percentage of regulated assets. The utilities in Dr. Vander Weide’s smaller group had an average bond rating in the “A” category. Moody’s considers a utility’s ability to earn the allowed return among several factors in their ratings, and a rating in the “A” category denotes Moody’s expectation that the utility would generally be able to earn its allowed return.³²⁷ Ms. McShane also employed the sample selection criteria set out on p.75 of her written evidence, which accomplished a similar purpose.

188. Ms. McShane stated that even those utilities that operate in jurisdictions with a less supportive regulatory framework are appropriate proxies for estimating FEI’s cost of equity, so long as their level of total risk (regulatory, fundamental business and financial risks) is comparable to FEI’s total risk.³²⁸ Canadian utilities generally have greater financial risk than U.S. utilities because they rely more heavily on debt financing than U.S. utilities. U.S. utilities’ risk may be reduced because U.S. utilities are generally allowed to normalize the benefits of

³²⁵ Tr 6, 1051, l. 26 – 1053, l. 1 (Vander Weide).

³²⁶ Tr 6, 1051, ll. 17-25 (Vander Weide).

³²⁷ Exhibit B1-9-6, FBCU Evidence, Appendix G, Vander Weide Evidence, Exhibit 5, p. 62; Tr 6 1053, ll. 2-18 (Vander Weide).

³²⁸ Exhibit B1-20, BCUC-FBCU (McShane) IR 1.54.3.

deferred taxes, whereas Canadian utilities are generally required to flow such benefits through to ratepayers.³²⁹ Ms. McShane's and Dr. Vander Weide's choice of comparables recognized these considerations.

(c) Prior Decisions Relying on U.S. Data

189. Canadian regulators, including the Commission, have accepted the relevance of U.S. comparables in the assessment of the cost of equity. The Commission's 2009 Decision provided:³³⁰

In addition, the Commission Panel continues to be prepared to accept the use of historical and forecast data of US utilities when applied: as a check to Canadian data, as a substitute for Canadian data when Canadian data do not exist in significant quantity or quality, or as a supplement to Canadian data when Canadian data gives unreliable results. Given the paucity of relevant Canadian data, the Commission Panel considers that natural gas distribution companies operating in the US have the potential to act as a useful proxy in determining TGI's capital structure, ROE, and credit metrics.

The Commission had also stated in the 2006 Decision that it "will give weight to Ms. McShane's first DCF test."³³¹ The reference to "Ms. McShane's first DCF test" was to the constant growth DCF test using a sample of relatively low-risk U.S. utilities.

190. The OEB has stated:³³²

Second, there was a general presumption held by participants representing ratepayer groups in the consultation that Canadian and U.S. utilities are not comparators, due to differences in the "time value of money, the risk value of money and the tax value of money." [fn] In other words, because of these differences, Canadian and U.S. utilities cannot be comparators. The Board disagrees and is of the view that they are indeed comparable, and that only an analytical framework in which to apply judgment and a system of weighting are needed.

³²⁹ Exhibit B1-9-6, FBCU Evidence, Appendix G, Vander Weide Evidence, p. 21.

³³⁰ 2009 Decision, p. 16

³³¹ 2006 Decision, p. 55.

³³² OEB Cost of Capital Decision, pp. 21-22.

191. The National Energy Board's March 2009 Decision relating to TQM considered the issue of whether or not U.S. utilities (in this case pipelines as well as gas distribution utilities) should be taken into account when cost of capital matters are being reviewed by a Canadian regulator. The NEB answered this issue in the affirmative, concluding that U.S. information was "very informative". At pages 66 and 67 the NEB said:

In the Board's view, global financial markets have evolved significantly since 1994. Canada has witnessed increased flows of capital and implemented tax policy changes that facilitate these flows. As a result, the Board is of the view that Canadian firms are increasingly competing for capital on a global basis. The Board notes that Canada has been diversifying its business partners such that there is currently proportionally less Canadian foreign direct investment in the United States than there was in the 1990's. Nonetheless, the evidence is also clear that the United States is the single most important recipient of Canadian investments.

A fair return on capital should, among other things, be comparable to the return available from the application of the invested capital to other enterprises of like risk and permit incremental capital to be attracted to the regulated company on reasonable terms and conditions. TQM needs to compete for capital in the global market place. The Board has to ensure that TQM is allowed a return that enables TQM to do so. Comparisons to returns in other countries would be useful, but challenging, in terms of differences in business risks and business environment. As a result, the Board is of the view that pipeline companies operating in the U.S. have the potential to act as a useful proxy for the investment opportunities available in the global market place.

192. The NEB also found that the regulatory environment in the U.S. and Canada was similar. Consistent with Dr. Vander Weide's evidence in this proceeding, the NEB was "not persuaded that the U.S. regulatory system exposes utilities to notable risks of major losses due to either unusual events or cost disallowance". Where that has happened in the past it related to unique events, and "such instances are not likely to weigh significantly in investors' perceptions today, and would thus have little or no impact on cost of capital".³³³ The NEB concluded:³³⁴

³³³ National Energy Board, *Trans Québec and Maritimes Pipelines Inc.* Reasons for Decision. RH-1-2008, March 2009 ("TQM Decision"), p. 67 (located in Exhibit A2-3, Brattle Group Report, Appendix B).

³³⁴ TQM Decision, p. 71.

In light of the Board's views expressed above on the integration of U.S. and Canadian financial markets, the problems with comparisons to either Canadian negotiated or litigated returns, and the Board's view that risk differences between Canada and the U.S. can be understood and accounted for, the Board is of the view that U.S. comparisons are very informative for determining a fair return for TQM for 2007 and 2008.

193. In short, there is ample regulatory precedent for reliance on U.S. data.

(d) No Adjustments to U.S. Data Are Required

194. Dr. Booth asserted that a downward adjustment of 1.0% to the returns estimated by reference to U.S. utilities is "certainly reasonable". Although Dr. Booth's claim is in the context of his view that U.S. utilities are of higher risk than Canadian utilities, the size of his proposed downward adjustment was unrelated to the relative risk of Canadian and U.S. utilities. Instead, it was based on his assertion that the U.S. equity market generally is a riskier market than the Canadian equity market and that the cost of capital generally is higher in the U.S. than in Canada. Ms. McShane demonstrated that:

- volatility in the two equity markets has been similar;
- the volatility of utility returns has been similar;
- the Fernandez survey of market risk premiums, upon which Dr. Booth relies shows no difference between the two countries; and
- long-term interest rates have been similar across a broad range of bond types.³³⁵

195. Dr. Safir made no adjustments to his U.S. results for the fact that his tests are derived from U.S. companies and data.

196. Dr. Booth's conclusion that a downward adjustment to the U.S. utility cost of equity is warranted based on differences in regulatory risk ignores a fundamental issue. Total investment risk is a function of business, regulatory and financial risk. Both Ms. McShane's and

³³⁵ Exhibit B1-32, FBCU Rebuttal Evidence, McShane Rebuttal Evidence, pp. 24-25, II. 657-685.

Dr. Vander Weide's U.S. utility samples had lower financial risk (e.g., higher common equity ratios) than FEI. As Ms. McShane noted, "Even if equity investors viewed the U.S. utility sample as facing higher business (combined operating and regulatory) risk than the benchmark BC utility (FEI), the U.S. utility sample has higher common equity ratios (lower financial risk)." In the case of Ms. McShane's U.S. utility sample, the average common equity ratio was 49% compared to FEI's 40%.³³⁶ A downward adjustment to the cost of equity derived from the U.S. utility samples would entail a double counting of any difference in regulatory risk that there might be, as the U.S. utility samples' higher common equity ratios already act as an offset.³³⁷

(e) Summary

197. In summary, the Commission should find that U.S. data remains useful and that U.S. utilities can be appropriate comparables based on total investment risk. The U.S. utilities used by Ms. McShane and Dr. Vander Weide are comparable based on overall investment risk. No further adjustments to the data are required.

C. APPLICATION OF THE DISCOUNTED CASH FLOW (DCF) TEST TO FEI

198. This section addresses the expert evidence on the DCF approach applied to comparable risk utilities for the determination of FEI's allowed ROE. The DCF approach has a sound theoretical basis and has been used widely in the utility context for many years. Ms. McShane, Dr. Vander Weide and Dr. Safir all employed the DCF approach. The FBCU submit that the Commission should give significant weight to the DCF estimates of Ms. McShane and Dr. Vander Weide for the reasons described below.

(a) Validity of the DCF Test

199. The DCF model has a sound theoretical footing³³⁸ and has been widely accepted for use in the public utility context. The Commission applied the DCF approach in both the 2006

³³⁶ Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, p. 75.

³³⁷ Exhibit B1-20, BCUC-FBCU (McShane) IR 1.55.

³³⁸ Exhibit B1-9-6, FBCU Evidence, Appendix G, Vander Weide Evidence, p.25. Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, p. 110-111; Exhibit B1-20, BCUC-FBCU (McShane) IR 1.57.1.

and 2009 Decisions. The Commission stated in the 2009 Decision: "As for the two most commonly used approaches, the Commission Panel finds that the DCF approach has the more appeal in that it is based on a sound theoretical base, it is forward looking and can be utility specific."³³⁹ The Federal Energy Regulatory Commission (FERC) now relies solely on DCF-based models to determine the fair return for U.S. interstate pipeline, utilities and transmission companies.

200. The expert evidence in this proceeding supports the continued use of the DCF model. Ms McShane and Dr. Vander Weide identified some attractive features of the DCF model that make it an appropriate and useful test for determining FEI's allowed ROE. The DCF test allows the analyst to directly estimate the utility cost of equity, in contrast to the Capital Asset Pricing Model (CAPM), which estimates the cost of equity indirectly.³⁴⁰ DCF based models explicitly analyze regulated utility company return data, consistent with the comparable investment return requirement of the Fair Return Standard. The CAPM does not. Further, DCF models measure the return utility investors do expect, in contrast to the CAPM, which measures the return investors should expect under the specific assumptions of the model.³⁴¹

201. With respect to the intervenor experts, Dr. Safir employed the DCF approach as one of his primary tests. Although Dr. Booth did not apply DCF except in the derivation of his market risk premium for the CAPM, he used to use it routinely as one of his primary tests.³⁴² Dr. Booth acknowledged under cross-examination that DCF remains an appropriate test.³⁴³

³³⁹ 2009 Decision, p. 45.

³⁴⁰ Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, pp.110-111; Exhibit B1-20, BCUC-FBCU (McShane) IR 1.57.1.

³⁴¹ Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, p. A-2.

³⁴² Tr 8, 1492, ll. 13-17 (Booth).

³⁴³ Tr 8, 1491, l. 25 - 1492 l. 1 (Booth).

(b) Description of Ms. McShane's and Dr. Vander Weide's Approach to DCF Estimate

202. A brief description of how Ms. McShane and Dr. Vander Weide each applied the DCF approach follows, together with a summary of the results yielded. The issues raised with respect to these approaches are addressed later in this section.

Ms. McShane's DCF Approach

203. Ms. McShane's DCF analysis is set out at pages 109-113 and Appendix C of her written evidence, and is summarized briefly below. Her DCF approach is consistent with the approach she had taken in the 2005 and 2009 Applications, to which the Commission gave weight.³⁴⁴

204. Ms. McShane's approach used estimates of the DCF cost of equity of comparable risk utilities as a proxy for the benchmark BC utility, which recognizes that investors have alternatives for their investment capital.³⁴⁵ Ms. McShane employed two samples, one consisting of Canadian companies, and one consisting of U.S. utilities that meet the selection criteria set out on pages 75 and 76 of her written evidence. Ms. McShane looked at Canadian regulated companies to the extent possible.³⁴⁶ She used a sample of U.S. utilities because there are only six publicly-traded Canadian utilities with conventional corporate structures, and there are insufficient forward-looking estimates of long-term growth rates for these companies.³⁴⁷ The ROE should be determined by reference to as many comparable entities as possible.³⁴⁸ As was discussed earlier in this section, the use of U.S. comparables is reasonable because the operating (or business) environments of U.S. regulated companies and Canadian utilities are

³⁴⁴ The Commission Panel stated at page 55 of the 2006 Decision that it "will give weight to Ms. McShane's first DCF test." The reference to "Ms. McShane's first DCF test" is to the test using a sample of relatively low-risk U.S. utilities.

³⁴⁵ Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, pp. 73-74.

³⁴⁶ Tr 4, 579, ll. 5 -25 (McShane).

³⁴⁷ Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, p. 74.

³⁴⁸ Tr 4, 579, ll. 5 -25 (McShane).

similar, the regulatory model in the U.S. is similar to the Canadian model, Canadian and U.S. capital markets are significantly integrated and the cost of capital environment is similar.³⁴⁹

205. As in 2005 and 2009, Ms. McShane used two models in her DCF analysis: the constant growth model³⁵⁰ and a multiple stage (three-stage) model.³⁵¹ Ms. McShane relied primarily on the consensus (mean) of analysts' earnings growth rate forecasts as the proxy for investors' long-term growth expectations, minimizing the need to superimpose on the analysis her own subjective view of growth expectations.³⁵²

206. Table 30 in Ms. McShane's written evidence (copied below) summarized the results of the two DCF models applied to both the U.S. and Canadian utility samples.

| | Constant Growth | | Three-Stage Model |
|--------------------|-------------------------|--------------------|-------------------|
| | Analysts' EPS Forecasts | Sustainable Growth | |
| U.S. Utilities | 9.3% | 8.7% | 9.2% |
| Canadian Utilities | 11.0% | N/A | 8.6% |

Source: Schedules 19-23.

207. The constant growth and three-stage DCF models applied to the U.S. sample indicated a utility cost of equity of approximately 9.0%. For the Canadian utilities, the higher long-term earnings growth forecasts in conjunction with lower dividend yields led to a wider range of DCF test results than for the U.S. utilities.³⁵³ The results of the constant growth model applied to the Canadian sample are in line with the market returns that utility investors have achieved historically.³⁵⁴ Based on the mid-point of the range of the constant growth and three-stage models, the cost of equity for the Canadian utility sample is approximately 9.8%. The

³⁴⁹ Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, p. 74.

³⁵⁰ The constant growth model rests on the assumption that investors expect cash flows to grow at a constant rate throughout the life of the stock. Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, p.111.

³⁵¹ Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, p. 100 and Appendix C.

³⁵² Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, p. 112.

³⁵³ Exhibit B1-24, BCUC-FBCU (McShane) IR 2.170.1.

³⁵⁴ Exhibit B1-24, BCUC-FBCU (McShane) IR 2.170.1.

application of both constant growth and three-stage models to the two samples supports a DCF cost of equity of approximately 9.1% to 9.8% (mid-point of approximately 9.4%). The addition of an allowance for financing flexibility of 50 basis points (as discussed below) to the “bare-bones” return on equity estimate of 9.4% derived from both the DCF models, results in a DCF estimate of the fair ROE of 9.9%.

Dr. Vander Weide’s DCF Analysis

208. The DCF model used by Dr. Vander Weide and its results are described at pages 25-31 of his written evidence, with further information in Exhibits 6 and 7. Two key elements of his analysis involved the selection of comparable utilities and the application of an expected growth rate.

209. Dr. Vander Weide applied the DCF model to two groups of U.S. utilities, a comprehensive group and a smaller group, both of whose business risk is broadly comparable to FEI’s business risk.³⁵⁵ He included both natural gas and electric utilities in his comparable risk groups to ensure that there is a sufficiently large group of companies to reliably estimate the cost of equity. The uncertainty in the estimate of the cost of equity for a single utility “can be greatly reduced by applying cost of equity methods to samples of comparable business risk utilities.”³⁵⁶ Dr. Vander Weide selected his comparables using similar transparent financial metrics to the criteria endorsed by the OEB.³⁵⁷ Dr. Vander Weide’s use of U.S. comparables was discussed above.

210. Dr. Vander Weide used expected growth rates reported by I/B/E/S, which reports a mean and standard deviation of the forecasts they receive from analysts.³⁵⁸ I/B/E/S is an objective source of expected growth rate information.

³⁵⁵ The composition of those groups is described in Exhibit B1-9-6, FBCU Evidence, Appendix G, Vander Weide Evidence, starting at p.15.

³⁵⁶ Exhibit B1-9-6, FBCU Evidence, Appendix G, Vander Weide Evidence, p. 13.

³⁵⁷ Exhibit B1-20, BCUC-FBCU (Vander Weide) IR 1.85.3; Exhibit B1-20, BCUC-FBCU (Coyne) IR 1.93.1 and 1.93.1.1; and Exhibit B1-24, BCUC-FBCU (Coyne) IR 2.181.1.

³⁵⁸ Exhibit B1-20, BCUC-FBCU (Vander Weide) IR 1.87.1.

211. Dr. Vander Weide's DCF results were summarized at page 31 of his written evidence. His application of the DCF model to his comprehensive group of utilities produced a result of 10.3%, and to his smaller group of utilities, 10.0%, including 0.50% for flotation costs. The FBCU submit that Dr. Vander Weide's DCF estimates are reasonable and should be given significant weight.

(c) Issues Raised Regarding Application of the DCF Model

212. Dr. Vander Weide and Ms. McShane were questioned about reliance on a constant growth model, the growth rates of Canadian comparables, and the use of U.S. utilities. The issue of using U.S. utilities has already been addressed, so the discussion below focuses on the first two issues. The FBCU submit, for the reasons described below, that Ms. McShane and Dr. Vander Weide provided compelling responses on these issues.

Constant Growth Assumption in the Constant Growth Model

213. Both Ms. McShane and Dr. Vander Weide used a constant growth DCF model as one of their DCF tests. One of the recognized theoretical issues with the constant growth model, as opposed to a multi-stage model (like the one Ms. McShane also employed), is that assuming a constant growth rate for the utility sector in perpetuity that is greater than the growth rate for the economy as a whole would mean, in theory, that the utility sector would become a much larger portion of the Canadian economy. Both Ms. McShane and Dr. Vander Weide recognized this issue and addressed it at the hearing.

214. Ms. McShane indicated that she accounted for the issue by giving only partial weight to the constant growth model. Nevertheless, with respect to her U.S. sample, the issue is effectively moot, as the analysts' forecasts of growth for the utilities were on average virtually identical to the forecast long-term growth in the economy.³⁵⁹ She indicated, with respect to her sample of Canadian utilities, that eliminating the model entirely in favour of a

³⁵⁹ Exhibit B1-20, BCUC-FBCU (McShane) IR 1.72.

multi-stage model alone is not the answer because the multi-stage model can understate the ROE:³⁶⁰

MS. McSHANE: ...Yeah, I think on its own, for this sample of utilities that the constant growth model overstates the longterm expected return. On the other hand, I think doing it -- when you implement a very low growth rate relatively speaking into the multi-stage model, you end up understating. So the answer is somewhere in the middle.

MR. FULTON: Q: And because the number is unreasonable, why not just eliminate it?

MS. McSHANE: A: Because I think what I was trying to say is that it's not that you eliminate it. You recognize that there is a range of these -- of values, and it falls in the middle. Similarly, I suppose, you could say, you know, eliminate the three-stage model because it's unreasonably low. And then you've got nothing.

215. Dr. Vander Weide's evidence was that the issue is adequately addressed by using average growth rates for a large sample of companies in the constant growth model:³⁶¹

MR. WALLACE: Q: And if we look at Exhibit 6 to your evidence, you will see there, Great Plains Energy is -- has -- at line 12, you have a 9.75 growth rate, and what will happen if -- in the way you use the DCF model, Great Plains actually does grow at 9.7 forever, when the U.S. GDP is only forecast to grow at about 5 percent?

DR. VANDER WEIDE: A: Well, obviously they can't grow at 9.75 percent forever. On the other hand, there are some growth forecasts in here for the next five years that are less than GDP growth forecasts. And some of these estimates may be somewhat high, and some may be somewhat low. But I don't believe on average there is any problem with these growth forecasts. These are very reasonable growth forecasts for utilities.

MR. WALLACE: Q: Okay. Well, I thought you might say that, and other analysts -- and I specifically refer to Ms. McShane, uses a three-stage growth model where the growth rate gradually adjusts to the growth rate in the GDP. Why didn't you use that form of model?

³⁶⁰ Tr 4, 665, ll. 4-20 (McShane).

³⁶¹ Tr 6, 973, l. 21 – 975, l.4 (McShane); see also Exhibit B1-32, FBCU Rebuttal Evidence, McShane Rebuttal Evidence, p. 16.

DR. VANDER WEIDE: A: I guess I have several reasons for that. One is that it's hard to decide where you draw the dividing line about changing the growth rate and going to the long-term growth rate. Do you change it after five years, after ten years? However many years. I don't know where that is.

Secondly, I don't believe that one should place too much weight on any single DCF result, such as that for Great Plains. I believe that there -- that one ought to look at the average for the entire group of companies. And there are some companies here that are forecasted, they'll only grow in the 3 percent range. So, I don't think that on the whole it would provide, for my companies, much additional information to approach -- to do a multi-stage DCF model.

216. The Commission gave weight to Ms. McShane's constant growth DCF test in the 2006 Decision.³⁶² In the 2009 Decision the Commission gave weight to Dr. Vander Weide's constant growth DCF test applied to natural gas utilities, and to Ms. McShane's constant growth DCF model.³⁶³ The FBCU submit that the constant growth model provides valuable insight into investor expected returns, and the Commission should continue giving considerable weight to the results.

No Evidence of Analyst Bias in Growth Forecasts

217. Dr. Booth's main argument against using DCF as a primary model was his view that optimism bias exists in the analyst growth forecasts. The Commission should, for the following reasons, find that the growth forecasts used in the determination of FEI's cost of capital are free of bias.

218. First, as the Brattle Group pointed out, "[f]rom a regulatory perspective...the issue is not whether analysts' growth forecasts generally exhibit optimism bias but whether there is optimism bias in forecast growth rates for utilities."³⁶⁴ The Brattle Group stated:

Analyst forecasts for the utility industry are likely to be more accurate than forecasts for other industries because firms with less variability in their earnings tend to have more accurate forecasts. This suggests analyst forecasts for the

³⁶² 2006 Decision, p. 55.

³⁶³ 2009 Decision, p. 51; Dr. Vander Weide did not appear in 2006.

³⁶⁴ Exhibit A2-3, Brattle Group Report, p. 28.

utility industry are likely to be more accurate and less prone to potential bias when compared to forecasts for other industries.³⁶⁵

Ms. McShane concurred that the utility business model, with regulatory oversight and more stable operations, makes optimism less of an issue for utilities than for the technology companies during the technology boom that had been the subject of academic commentary.³⁶⁶ Dr. Booth also agreed with the proposition that any optimism bias is likely to be less evident in utilities than in other sectors of the economy.³⁶⁷

219. Second, the Brattle Group noted that there is “substantial academic evidence that analyst earnings estimates are superior to other forecasts.”³⁶⁸ Ms. McShane also noted that analysts’ forecasts have been shown to be better predictors of growth than historic numbers.³⁶⁹

The investors’ expectations will be in part informed by history. To the extent that history is relevant they should be -- that history should be reflected in the forward-looking analysts’ forecasts. Analysts’ forecasts have been shown to be better predictors of growth than historic numbers, so I think it is best to use, in the context of the DCF, the analysts’ forecasts as the best measure of investor expectations.

The very fact that an extensive investment research industry has developed, and continues to thrive, signals that value is perceived in the forecasts.³⁷⁰ Dr. Vander Weide assessed the research literature regarding the claim that analysts’ forecasts are overly optimistic and found that overall, it strongly supports the view that analysts’ growth forecasts are not optimistic.³⁷¹

³⁶⁵ Exhibit A2-3, Brattle Group Report, p. 29.

³⁶⁶ Exhibit B1-24, BCUC-FBCU (McShane) IR 2.174.2. At the hearing, when Commission counsel suggested to Ms. McShane that unrealistic expectations in a period of “irrational exuberance” should not be used in the DCF model. Ms. McShane responded by saying “we’re not talking about utilities when we’re talking about irrational exuberance.” Tr 4, 592, l. 22 – 593, l. 18 (McShane).

³⁶⁷ Tr 8, 1576, ll. 7-13 (Booth).

³⁶⁸ Exhibit A2-3, Brattle Group Report, p. 28.

³⁶⁹ Tr 4, 614, ll. 14-22 (McShane).

³⁷⁰ Exhibit B1-20 BCUC-FBCU (McShane) IR 1.71.1.

³⁷¹ Exhibit B1-32, FBCU Rebuttal Evidence, Vander Weide Rebuttal Evidence, p. 29.

220. Third, Ms. McShane tested for bias with respect to the forecasts for her own sample by comparing it to forecasts provided by an independent research firm, and found no evidence of bias.³⁷²

221. Fourth, the Commission Panel has twice previously rejected Dr. Booth's assertion that there is an upward bias in growth forecasts. In the 2006 Decision the Commission characterized Dr. Booth's evidence in this regard as unhelpful:³⁷³

The Commission Panel does not find Dr. Booth's comments helpful in that his observations mostly cover U.S. technology analysts and the scandal on Wall Street concerning inappropriate analyst behaviour in an investment banking milieu. The Commission Panel finds that Dr. Booth's use of DCF estimates for U.S. Utilities covered by Standard & Poors, which included "multi-utilities" and energy marketing firms, should not be used as representative of U.S. utility returns. The Commission Panel is more persuaded by Ms. McShane's evidence which compares Value Line and I/B/E/S forecasts and finds no upward bias in the latter. Accordingly, the Commission Panel will give weight to Ms. McShane's first DCF Test

The argument of "upward bias" of analyst estimates was again advanced by interveners in 2009, and again the Commission rejected the argument:³⁷⁴

The Commission Panel has considered the submission of the JIESC concerning "upward bias" of analysts' estimates and considers that no allegations of upward bias have been levelled against utility analysts and that Value Line estimates will be free from any suggestion of upward bias. Accordingly the Commission Panel will not give any weight to suggestions of analyst bias.

The same reasoning applies today.

222. Dr. Booth's opposition to the DCF test based on its sensitivity to growth forecasts rings hollow when one considers that there is at least as much certainty with the DCF test as with the CAPM.³⁷⁵ In the case of the DCF model, although the growth term is not directly

³⁷² Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, Appendix C, p.C-6 to C-8; Tr 4, 519, ll. 2-7 (McShane).

³⁷³ 2006 Decision, p. 55.

³⁷⁴ 2009 Decision, p. 45.

³⁷⁵ Tr 6, 977, ll. 7-13 (Vander Weide).

observable, the dividend yield is directly observable from stock prices and dividends.³⁷⁶ CAPM is sensitive to the estimates of the risk-free rate, beta and the market risk premium.³⁷⁷

Growth Rates of Canadian Comparables

223. Ms. McShane addressed at the hearing the suggestion put to her by Commission Counsel that some of the Canadian comparables she had used in her DCF analysis had higher growth prospects than FEI and were therefore not good comparables. She explained that there are no companies in Canada with the precise characteristics, in terms of growth, as FEI. The comparables provide the best available data, and the effect of higher growth tends to be offset by lower dividend yields:³⁷⁸

...the availability of publicly traded companies in Canada with regulated operations is limited. I mean, we obviously rely on them to – when we look at the capital asset pricing model in the betas, but these are the best comparables that we have for regulated utilities. And just because, as I said, a company might have better growth prospects than the subject company for whom the cost of equity is being estimated, doesn't make that company not an appropriate proxy. For two reasons. One, it's an alternative potential investment, and two, there will be a tendency to have -- if you have low growth, you'll have a high yield, and if you have high growth prospects, you'll have a lower dividend yield.

(d) Evidence of Dr. Safir on DCF

224. Dr. Safir used a DCF model, which yielded a result of 9.42%, inclusive of a 0.50% adjustment for flotation costs. His result was within 50 basis points of Ms. McShane's 9.9%.

225. Dr. Safir's approach was similar Ms. McShane's approach in that Dr. Safir's calculations were based on a group of Canadian companies and a group of U.S. utilities. Dr. Safir's Canadian group essentially mirrored the group used by Ms. McShane.³⁷⁹ Dr. Safir's U.S. group included the eighteen electric and natural gas utilities identified in his Schedule 2, which includes all of the utilities in Ms. McShane's sample plus five additional gas distribution utilities.

³⁷⁶ Exhibit B1-20, BCUC-FBCU (Vander Weide) IR 1.86.1.

³⁷⁷ Exhibit A2-3, Brattle Group Report, p. 25.

³⁷⁸ Tr 4, 583, l. 24 – 584, l. 11 (McShane). See also Tr 4, 579, ll. 5 -25 (McShane).

³⁷⁹ Dr. Safir uses Canadian Utilities, Emera, Enbridge, Fortis, and TransCanada.

226. The main factor contributing to Dr. Safir's lower DCF result than the DCF results of either Ms. McShane or Dr. Vander Weide was that, rather than conduct a constant growth DCF estimate based on analysts' forecasts, Dr. Safir combined analysts' forecasts with GDP growth, arbitrarily assigning the latter two-thirds weight, to come up with one "constant" growth rate. Had he applied the constant growth model using analysts' forecasts and then considered that result in conjunction with his more judgmental model, his result would have been very close to those of both Ms. McShane and Dr. Vander Weide, despite the differences in selected samples.³⁸⁰

(e) Conclusion on DCF Approach

227. The FBCU submit that the DCF modelling performed by Ms. McShane and Dr. Vander Weide yielded reasonable estimates of FEI's cost of equity. The Commission gave weight to DCF-related results in the 2006 Decision. The Commission again employed the DCF methodology in the 2009 Decision, finding it to have greater appeal than ERP tests because it is based on a sound theoretical base, is forward looking, and can be utility specific. The Commission should similarly give significant weight in this proceeding to Ms. McShane's and Dr. Vander Weide's DCF results in the determination of the fair ROE for the benchmark FEI.

D. APPLICATION OF THE EQUITY RISK PREMIUM TESTS TO FEI

228. Ms. McShane, Dr. Vander Weide, Dr. Booth and Dr. Safir all applied some form of equity risk premium test. Ms. McShane's three equity risk premium tests, and Dr. Vander Weide's two equity risk premium tests produced reasonable results and should be given weight. The traditional CAPM estimates understated FEI's cost of equity and should be disregarded.

³⁸⁰ Dr. Safir's Schedules 3 and 4 indicate that the constant growth model applied to his samples of Canadian and U.S. utilities would have produced average DCF costs of equity of approximately 11.0% (adjusted dividend yield of 3.5% plus analysts' growth forecast of 7.49%) and 9.5% (adjusted dividend yield of 3.98% plus analysts' growth forecast of 5.5%) respectively before flotation costs. The corresponding returns are 11.5% and 10% after flotation costs,, for an average of 10.7%. Combined with the 9.42% result of his DCF model, the indicated DCF cost of equity would be approximately 10%, compared to Ms. McShane's 9.9% and Dr. Vander Weide's 10.0% to 10.3%.

(a) Risk Free Rate

229. All four of the witnesses who recommended an ROE for FEI relied on a forecast risk-free rate in their application of equity risk-premium tests, including the CAPM. All four used forecasts of the 30-year Government of Canada bond yield as the proxy for the risk-free rate. Both Ms. McShane and Dr. Vander Weide relied on Consensus Economics, Consensus Forecasts for their estimates, the same source that the Commission and other regulators have relied upon in past decisions as a transparent means of representing investors' expectations of the long-term Canada bond yield.

230. Each of the four witnesses took a somewhat different approach to estimating the risk-free rate for purposes of their risk premium tests. Ms. McShane and Dr. Safir estimated the 30-year Canada bond yield over multiple years, three and five years respectively. Dr. Vander Weide and Dr. Booth relied on a forecast for 2013 only, basing their equity risk premium tests on forecasts of 2.95% and 3.0% respectively. The extent of the divergence in forecast long-term Canada bond yields among the experts in this proceeding is relatively unusual. However, that divergence is largely a function of the abnormally low current and near-term forecast levels of long-term Government of Canada bond yields. To arrive at a reasonable estimate of the utility risk premium and cost of equity with these low yields, the yield used in an equity risk premium test must either be normalized or, if only the near term (2013) forecast is used, the magnitude of the equity risk premium must correspond to that yield. In this environment of abnormally low yields, there is no single right long-term Government of Canada bond yield to use in an equity risk premium test. There does, however, need to be consistency between the choice of risk-free rate and the estimated premium. It would not be reasonable, for example, to add the abnormally low 2013 3% forecast of long-term Government of Canada bond yields to a long-term average utility risk premium.

(b) Description of Ms. McShane's Equity Risk Premium Tests

231. Ms. McShane used three equity risk premium tests: a "Risk-Adjusted Equity Market Premium test", a "DCF-Based Equity Risk Premium test" (not to be confused with the

DCF tests described previously), and a Historic Utility ERP test. The tests, and their outcomes, are summarized below.

Risk-Adjusted Equity Market Risk Premium Test

232. Ms. McShane's Risk-Adjusted Equity Market Premium test is addressed at pages 76-109 of her written evidence, with further information provided in her Appendix A. In broad terms, the risk-adjusted equity market risk premium test is a variant of the CAPM. It estimates the required utility equity risk premium indirectly by estimating an equity risk premium for the equity market as a whole, and then adjusts it for the relative risk of the utility. The utility risk premium is then added to a forecast of the risk-free rate, estimated by reference to the 30-year Government of Canada bond yield.

233. For the purposes of applying this ERP test, as well as the other two ERP tests described below, Ms. McShane relied on a forecast for 2013-2015 of 4.0%. Ms. McShane estimated the equity market risk premium to be 7.25% to 7.5% at a forecast 4.0% 30-year Government of Canada bond yield. At an equity market risk premium of 7.25% to 7.5% and a relative risk adjustment of 0.65-0.70, the indicated equity risk premium for the benchmark BC utility i.e., FEI, is in the range of approximately 5.2% to 5.6%. Based on the Risk-Adjusted Equity Market Risk Premium test, the corresponding cost of equity is in the range of approximately 8.9% to 9.1% (mid-point of 9.0%), before any adjustment for financing flexibility, and 9.5% with a 0.50% allowance for financing flexibility.³⁸¹

DCF-Based Equity Market Risk Premium Test

234. The DCF-Based Equity Risk Premium Test is discussed in Ms. McShane's written evidence starting at page 99. It estimates the utility equity risk premium as the difference between the DCF cost of equity and yields on long-term government bonds, as well as the difference between the DCF cost of equity and yields on long-term "A"-rated utility bonds. In contrast to the Risk-Adjusted Equity Market Risk Premium test, as with the DCF test itself, the

³⁸¹ Exhibit B1-9-6, FBCU Evidence, Appendix F, p. 99 and p. 119.

DCF-Based Equity Market Risk Premium test estimates the utility equity risk premium directly by analyzing utility equity return data.³⁸² The DCF-Based Equity Market Risk Premium test lends itself to explicitly estimating the relationship between utility equity risk premiums (or the utility cost of equity) and interest rates. Over the range of the data analyzed, the utility equity risk premium is higher at lower levels of interest rates than it is at higher levels of interest rates, i.e., there is an inverse relationship between long-term bond yields and the utility equity risk premium.³⁸³

235. Ms. McShane undertook a variety of DCF-based risk premium regression analyses, which are described in her evidence. The analyses suggest that, at the forecast 30-year Canada and “A”-rated utility bond yields, the indicated utility cost of equity before any adjustment for financing flexibility, is in the range of approximately 9.4% to 9.7%, and approximately 9.6% based on all the DCF-based risk premium models. Ms. McShane’s Tables 25 and 26 summarized the results of the DCF-based modelling. Table 25, as shown below, set out the results using long-term government bond yields and spreads between long-term “A”-rated utility and long-term government bond yields:

| | Coefficients | | Equity Risk Premium | Cost of Equity |
|---------------------------|-----------------|-------------------|---------------------|----------------|
| | Government Bond | Bond Yield Spread | | |
| Constant Growth | | | | |
| Single Variable | -0.77 | n/a | 5.7% | 9.7% |
| Two Variable | -0.86 | 1.06 | 5.5% | 9.5% |
| Three-Stage Growth | | | | |
| Single Variable | -0.65 | n/a | 5.7% | 9.7% |
| Two Variable | -0.71 | 0.68 | 5.6% | 9.6% |
| Allowed ROEs | | | | |
| Single Variable | -0.46 | n/a | 6.2% | 10.2% |
| Two Variable | -0.47 | 0.27 | 6.1% | 10.1% |

³⁸² Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, p. 99.

³⁸³ Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, pp. 100-101 (including footnote 118) and p. 104.

236. Table 26, shown below, set out the results based on the relationship between the DCF cost of equity and long-term “A”-rated utility bond yields.

| Model | Coefficient | Risk Premium over A-Rated Bond Yield | Cost of Equity |
|----------------------------|-------------|--------------------------------------|----------------|
| Constant Growth DCF | -0.43 | 4.0% | 9.4% |
| Three-Stage DCF | -0.57 | 4.2% | 9.6% |
| Allowed ROEs | -0.57 | 4.8% | 10.2% |

Inclusive of a 0.50% allowance for financing flexibility, Ms. McShane’s DCF-Based Equity Market Risk Premium test supports an ROE of 10.1%.³⁸⁴

Historic Utility Equity Risk Premium Test

237. Ms. McShane considered the historic experienced market returns for utilities as an additional perspective on a reasonable expectation for the forward-looking utility equity risk premium. Similar to the DCF-Based Equity Risk Premium test, the Historic Utility Equity Risk Premium test estimates the cost of equity for regulated companies directly by reference to return data for regulated companies. Reliance on achieved equity risk premiums for utilities as an indicator of what investors expect for the future is based on the proposition that over the longer term, investors’ expectations and experience converge. The more stable an industry, the more likely it is that this convergence will occur. The utility industry is a stable industry. Ms. McShane summarized the results in Table 27 of her evidence, repeated below:³⁸⁵

| | Utility Equity Returns | Bond Total Returns | Bond Income Returns | Utility Risk Premium Relative To: | |
|--------------------------------|------------------------------|-----------------------|---------------------------|--------------------------------------|------------------------|
| | | | | Bond Total Returns | Bond Income Returns |
| Canadian Utilities | 12.1% | 7.9% | 7.3% | 4.2% | 4.8% |
| U.S. Gas Utilities | 11.9% | 6.6% | 5.9% | 5.3% | 6.0% |
| U.S. Electric Utilities | 11.0% | 6.6% | 5.9% | 4.4% | 5.1% |

Source: Schedule 18.

³⁸⁴ Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, p. 19.

³⁸⁵ Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, pp. 107-108.

238. Recognizing the inverse relationship between utility equity risk premiums and long-term government bond yields, the Historic Utility ERP approach indicates a utility equity risk premium of approximately 6.5% at the forecast 4.0% 30-year Government of Canada bond yield. The corresponding utility cost of equity is approximately 10.5% before any allowance of financing flexibility and 11.0% including an allowance of 0.50%.³⁸⁶

Cost of Equity Based on Ms. McShane's Equity Risk Premium Tests

239. Ms. McShane's estimated utility costs of equity based on the three ERP methodologies are summarized below:

| Risk Premium Test | Cost of Equity |
|-----------------------------|----------------|
| Risk-Adjusted Equity Market | 9.0% |
| DCF-Based | 9.6% |
| Historic Utility | 10.5% |

Ms. McShane accorded equal weight to each of the methods in the estimation of FEI's cost of equity because none of the individual ERP tests yields an inherently superior estimate of the returns that an investor would expect or require for FEI.³⁸⁷

(c) Dr. Vander Weide's Equity Risk Premium Evidence

240. Dr. Vander Weide used two equity risk premium methods or tests to estimate the cost of equity for FEI: the Ex Post Risk Premium test and the Ex Ante Risk Premium test.³⁸⁸ Each of these methods is summarized below, together with the results of Dr. Vander Weide's analyses.

Ex Post Risk Premium Method

241. The Ex Post Risk Premium test measured the return experienced by investors in Canadian utility stocks from historical data on returns earned by investors in: (1) the S&P/TSX

³⁸⁶ Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, p. 109 and p. 119.

³⁸⁷ Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, p. 110.

³⁸⁸ Tr 6, 1095, ll. 1-19 (Vander Weide).

utilities stock index; and (2) a basket of Canadian utility stocks created by BMO Capital Markets (BMO CM). The S&P/TSX utilities stock index return data covers the period 1956 through 2011, and the BMO CM stock return data covers the period 1983 through 2011. Dr. Vander Weide analyzed the investors' experienced returns over long time periods – he went back as far in history as he could obtain reliable data - because experienced returns over short periods can deviate significantly from expectations.³⁸⁹

242. Using two sets of Canadian utility stock return performance data provides different information on Canadian utility stock returns. The S&P/TSX utility index is valuable because it provides information on the returns experienced by investors in a portfolio of Canadian utility stocks over a relatively long period of time. However, six of the ten companies included in the S&P/TSX utility index operate mainly in non-traditional utility markets. The BMO CM utility stock return database is valuable because it provides information on the experienced returns for a sample of Canadian companies that receive a significantly higher percentage of revenues from traditional utility operations than the companies in the S&P/TSX index. However, the time period covered is not as long as the period covered by the S&P/TSX utility index.³⁹⁰ The combination of both indices provided a good data base, on which Dr. Vander Weide could conduct the Ex Post analysis.

243. Dr. Vander Weide calculated the experienced returns on an investment in each utility data set from the historical record of stock prices and dividends for the companies in the data set. From the historical record of stock prices and dividends, the index sponsors construct an index of investors' wealth at the end of each period, assuming a \$100 investment in the index at the time the index was constructed. Dr. Vander Weide calculated an annual rate of return using that information. He used the difference between the utility equity market returns and the corresponding interest yields earned on long-term Canada bonds to estimate the utility equity risk premium over the risk-free rate.³⁹¹

³⁸⁹ Exhibit B1-9-6, FBCU Evidence, Appendix G, Vander Weide Evidence, p. 33.

³⁹⁰ Exhibit B1-9-6, FBCU Evidence, Appendix G, Vander Weide Evidence, p. 33.

³⁹¹ Exhibit B1-9-6, FBCU Evidence, Appendix G, Vander Weide Evidence, p. 34.

244. The Ex Post Risk Premium method results were:³⁹²

| COMPARABLE GROUP | PERIOD OF STUDY | AVERAGE STOCK RETURN | AVERAGE BOND YIELD | RISK PREMIUM |
|---------------------------------|-----------------|----------------------|--------------------|--------------|
| S&P/TSX Utilities | 1956 – 2011 | 11.99 | 7.33 | 4.7 |
| BMO CM Utilities Stock Data Set | 1983 – 2011 | 16.01 | 7.24 | 8.8 |
| Average | | | | 6.7 |

245. Dr. Vander Weide drew the following conclusions from experienced, or ex post, risk premium studies about the required risk premium on an investment in Canadian utility stocks:

My ex post risk premium studies provide evidence that investors require an equity return that is at least 6.7 percentage points above the interest rate on long-term Canada bonds. The Consensus Economics forecast interest rate on long-term Canada bonds for 2013 as of May 2012 is 2.95 percent. Adding a 6.7 percentage point risk premium to an expected yield of 2.95 percent on long-term Canada bonds and including a conservative 50-basis point allowance for flotation costs and financial flexibility produces an expected return on equity equal to 10.2 percent from my ex post risk premium studies.

246. Dr. Vander Weide went on to identify evidence that the required equity risk premium may actually be greater than 6.7 percentage points. He explained that the required equity risk premium increases when interest rates decline and decreases when interest rates rise. He reasoned: “Since the expected 2.95 percent yield on long Canada bonds is significantly less than the 7.3 percent average yield on long Canada bonds over the period of my ex post risk premium studies, the current required equity risk premium should be significantly higher than the average 6.7 percent equity risk premium I obtain from my ex post risk premium studies.”³⁹³

Ex Ante Risk Premium Method

247. The Ex Ante Risk Premium method is described starting at page 35 of Dr. Vander Weide’s written evidence. It is based on studies of the expected return on comparable groups

³⁹² Exhibit B1-9-6, FBCU Evidence, Appendix G, Vander Weide Evidence, p. 34.

³⁹³ Exhibit B1-9-6, FBCU Evidence, Appendix G, Vander Weide Evidence, p. 34.

of utilities in each month of his study period compared to the interest rate on long-term government bonds.³⁹⁴ Dr. Vander Weide studied the sensitivity of the forward-looking required equity risk premium on utility stocks to changes in interest rates in two steps. First, he estimated the forward-looking required equity risk premium on utility stocks in each month of the study period as the difference in the DCF cost of equity and the yield on long-term government bonds. Second, he performed a regression analysis of the relationship between changes in the required equity risk premium and changes in interest rates.³⁹⁵ Similar to Ms. McShane's DCF-Based Equity Market Risk Premium test, a key advantage of the Ex Ante ERP test is that it can account for differences in the utility equity risk premium and cost of equity at different levels of interest rates.³⁹⁶

248. Dr. Vander Weide used two sets of comparable U.S. utilities, an electric utilities group and a natural gas utilities group as the basis for his analysis. For his electric group, Dr. Vander Weide used the Moody's group of 24 electric companies because they are a widely-followed group of utilities, and the use of this constant group greatly simplified the data collection task required to estimate the *ex ante* risk premium over the months of the study. For his natural gas group, Dr. Vander Weide selected all the utilities in Value Line's natural gas company groups that were within the criteria set out on page 19 of his written evidence. Dr. Vander Weide used U.S. utilities rather than Canadian utilities in his *ex ante* risk premium studies because the studies rely on the DCF model to determine the expected risk premium on utility stocks. The DCF model requires estimates of investors' growth expectations, which are best measured from the average of analysts' growth forecasts for each company. There are very few, if any, analysts' growth forecasts available for each Canadian utility over the 10-year time period of Dr. Vander Weide's study.³⁹⁷

249. The *ex ante* risk premium studies produced an ex ante risk premium for Dr. Vander Weide's electric utility comparable group of 7.5 percent, and for his natural gas

³⁹⁴ Exhibit B1-9-6, FBCU Evidence, Appendix G, Vander Weide Evidence, p. 35.

³⁹⁵ Exhibit B1-9-6, FBCU Evidence, Appendix G, Vander Weide Evidence, p. 35.

³⁹⁶ Exhibit B1-9-6, FBCU Evidence, Appendix G, Vander Weide Evidence, p. 37.

³⁹⁷ Exhibit B1-9-6, FBCU Evidence, Appendix G, Vander Weide Evidence, pp. 36-37.

comparable group an *ex ante* risk premium of 8.0 percent. In the Ex Ante ERP approach, one must add the expected interest rate on long-term government bonds to the estimated risk premium to calculate the cost of equity. Dr. Vander Weide estimated the expected yield on long-term government bonds using the same Consensus forecast interest rate on long-term Canada bonds as in his Ex Post equity risk premium test, 2.95 percent. Adding this 2.95 percent interest rate to his 8.0 percent and 7.5 percent *ex ante* risk premium estimates, and adding a fifty-basis-point adjustment for flotation costs and financial flexibility, Dr. Vander Weide obtained cost of equity estimates of 11.5 percent and 11.0 percent. A more detailed description of the Ex Ante ERP approach and results is described in his written evidence at Exhibit 10, Exhibit 11, and Exhibit 24, Appendix 3.

(d) Conceptual and Practical Issues With Using the CAPM to Determine Benchmark Utility ROEs

250. Dr. Booth's recommended ROE for FEI is based solely on his application of the CAPM, undertaking DCF calculations only to support an adjustment to his market risk premium to account for government action that has resulted in an unusually low long-Canada bond yield. Dr. Safir also conducted a CAPM analysis, and gave the results one-third weight. Before addressing the specific issues arising from Dr. Booth's and Dr. Safir's application of the CAPM, we will address both the practical and conceptual issues that call into question reliance on the output of the CAPM for the purpose of determining the benchmark ROE. The four main conceptual and practical issues with application of the CAPM in this context are:

- First, the model does not provide any guidance as to how the market risk premium varies with the risk-free rate;
- Second, the model's assumption that beta is the only measure of risk that investors care about is questionable;
- Third, the CAPM has been demonstrated to underestimate the required return for low beta stocks like utility stocks; and

- Fourth, the application of portfolio theory, which underpins the CAPM, is ill-suited to the context of utility investments in long-term system assets where the utility has a duty to serve and the capital cannot be withdrawn and reinvested elsewhere once deployed.

Market Risk Premium and Unusually Low Expected Risk Free Rate

251. The market risk premium changes with investor experience and expectations. It would be higher, for example, when investors perceive that the risk of the equity market has increased relative to that of the government bond market and vice versa. However, the CAPM does not readily allow estimation of changes in the size of the market risk premium as economic or capital market conditions (e.g., interest rates) change. The typical application of the CAPM relies heavily on long-term average achieved equity risk premiums in conjunction with a current or forecast risk-free rate. In other words, the typical application of the model captures changes in interest rates by using a current or forecast interest rate as the risk-free rate, but the model itself does not readily allow estimation of changes in the size of *the market risk premium* as the risk-free rate, proxied by the long-term Canada bond yield, changes.³⁹⁸

252. This obstacle is particularly problematic with current and forecast long-term Canada bond yields at historically low levels.³⁹⁹ Since the long-term historic average long-term Government of Canada bond yield exceeds the forecast yield by a wide margin, the long-term average achieved market risk premium is unlikely to be an accurate estimate of the required market risk premium.⁴⁰⁰ Ms. McShane elaborated: “[I]t is not reasonable to assume that the market risk premium (which represents the difference between the equity market return and the risk-free rate) is equal to its long-term average when the prevailing and forecast risk-free rate is much lower than its long-term average.”⁴⁰¹

³⁹⁸ Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, pp. 67-68.

³⁹⁹ Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, p. 68.

⁴⁰⁰ Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, p. 68.

⁴⁰¹ Exhibit B1-20, BCUC-FBCU (McShane) IR 1.50.1.

253. Dr. Vander Weide identified the unusually low government bond yield as a factor causing CAPM estimates of the cost of equity to be unrealistically low at this time:⁴⁰²

In addition to the reasons discussed above, the CAPM produces unrealistically low results because the CAPM results are highly sensitive to the estimate of the risk-free rate as measured by the yield on long-term government bonds. At this time, the yield on long-term government bonds is unusually low, reflecting policy decisions of Canadian and U.S. governments, the Bank of Canada, and the U.S. Federal Reserve Bank to keep interest rates low in order to stimulate their economies. The use of an unusually low risk-free rate in the CAPM is an additional factor that causes the CAPM to underestimate the cost of equity.

254. The AUC held that the relatively low expected level of the risk-free rate in the next few years needs to be expressly recognized in the estimation of the magnitude of market and utility equity risk premiums:

...it does not appear that the market equity risk premium is constant or independent of the level of interest rates, which is what is implied when an historic equity risk premium is applied to today's low interest rates. This calls into question the use of long-term historic market equity risk premiums without regard to the current level of interest rates.⁴⁰³

The AUC also stated that "it would not be correct to assume that the currently expected market equity risk premium is necessarily equal to its long-term average value" concluding "that the expected market equity risk premium today may be higher than its historic average, due to today's low interest rates."⁴⁰⁴

255. Dr. Booth acknowledged this disconnect by adding 120 bps to his CAPM based ROE. However, the adjustment he makes is highly judgmental and should be approached with caution.

256. Dr. Safir also implicitly incorporated an adjustment by using five-year forecasts of long-term government bond yields. Nevertheless, his forecast long-term Government of

⁴⁰² Exhibit B1-9-6, FBCU Evidence, Appendix G, Vander Weide Evidence, p.43.

⁴⁰³ AUC, Decision 2011-474, para. 56. Cited in Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, p.78.

⁴⁰⁴ AUC, Decision 2011-474, para. 57-58. Cited in Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, p. 78.

Canada bond yield remains well below both the average forecast to prevail over the longer-term and the historical average bond yield.

257. The Commission should view Dr. Booth's and Dr. Safir's exercise of judgment in the context of their approach of trying to achieve the lowest possible return, rather than an ROE that reflects FEI's true cost of equity.

Beta as the Sole Risk Variable

258. The theoretical CAPM holds that equity investors only require compensation for risk that they cannot diversify by holding a portfolio of investments. In the simple, one risk variable CAPM, the non-diversifiable risk is captured in beta. Ms. McShane identified a number of impediments to reliance on the equity beta as the sole relative risk measure:

- First, the CAPM assumes that all risk for which investors require compensation can be captured and expressed in a single risk variable. The determination of the return on equity that investors require for bearing the risk of a particular investment is more complex than the single risk variable, beta, implies.
- Second, the CAPM assumes that the only risk for which investors expect compensation is non-diversifiable equity market risk; no other risk is considered (and priced) by investors. This premise erroneously implies that investors are only concerned with the price volatility of their equity investments, not the underlying fundamental risks that may lead to loss of earning power and ultimately a failure to recover their invested capital.
- Third, the assumption that the observed calculated betas (which are simply a calculation of how closely a stock's or portfolio's price changes have mirrored those of the overall equity market) are a good measure of the relative return requirement. As discussed further below, empirical tests of the CAPM and experienced returns undermine the validity of that assumption.

- Fourth, use of beta as the relative risk adjustment allows for the conclusion that the cost of equity capital for a firm can be lower than the risk-free rate, since stocks that move counter to the rest of the equity market could be expected to have betas that are negative. In that case, the CAPM would posit that the cost of equity capital 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. The proposition that a firm's cost of equity could be lower, not only than its own cost of debt, but than the risk-free rate is dubious at best.

259. The Commission in its 2006 Decision had recognized the shortcomings of reliance on beta values, citing similar reasons to those articulated by Ms. McShane in this proceeding. The Commission stated:⁴⁰⁵

Impediments to reliance on beta as the sole relative risk measure, as the CAPM indicates, include:

- the assumption that all risk for which investors require compensation can be captured and expressed in a single variable;
- the only risk for which investors expect compensation is non-diversifiable equity market risk; no other risk is considered (and priced) by investors; and
- the assumption that the observed calculated betas (which are simply a calculation of how closely a stock's or portfolio's price changes have mirrored those of the overall equity market) are a good measure of the relative return requirement.

Use of beta as the relative risk adjustment allows for the conclusion that the cost of equity capital for a firm can be lower than the risk-free rate, since stocks that have moved counter to the rest of the equity market could be expected to have betas that are negative [exhibit references omitted].

The CAPM Underestimates Returns For Low Beta Stocks

260. Empirical studies have shown that stocks with low betas (less than the equity market beta of 1.0) have achieved returns higher than predicted by the single variable (that is,

⁴⁰⁵ 2006 Decision, pp. 47-48.

equity beta) CAPM. Conversely, stocks with betas higher than the equity market beta of 1.0⁴⁰⁶ have achieved lower returns than the model predicts.⁴⁰⁷ Utility stocks are low beta stocks, and thus the empirical evidence suggests their returns are understated by the CAPM.

261. Brattle Group described the issue as follows:⁴⁰⁸

Perhaps the most fundamental challenge to the CAPM has been the consistent empirical observation that the model does not explain stock performance well in a statistical sense. For example, low beta stocks tend to have higher average returns than predicted by the CAPM, and high beta stocks have lower average returns – that is, the empirical estimates seem to require a pivot of the SML around beta = 1.0 from the traditional version of the CAPM.

Dr. Vander Weide concurred with the Brattle Group regarding the “consistent empirical observation”. He stated that, although scholars might disagree on the reasons for the observed return/beta relationship, they generally agree that the CAPM underestimates portfolio returns for companies with betas less than 1.0 and is less reliable the further the estimated beta is from 1.0.⁴⁰⁹

262. Dr. Vander Weide described his own analysis comparing the average historical risk premiums on Canadian utility stocks over the periods 1956 to 2012 and 1983 to 2012 to the average historical risk premium on the S&P TSX Composite.⁴¹⁰ The results for Canadian utilities are similar to the results for U.S. utilities in the sense that the average historical risk premiums on Canadian utility stocks are higher than would be indicated by the betas for Canadian utility stocks.⁴¹¹ Dr. Vander Weide elaborated:⁴¹²

Q 38 Do you have evidence that the CAPM is specifically unable to predict the relationship between risk and return for Canadian utilities?

⁴⁰⁶ The equity market composite, by construction, has a beta of 1.0. Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, p. 97.

⁴⁰⁷ Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, p. 97.

⁴⁰⁸ Exhibit A2-3, Brattle Group Report, p. 25.

⁴⁰⁹ Exhibit B1-9-6, FBCU Evidence, Appendix G, Vander Weide Evidence, p. 43.

⁴¹⁰ See Exhibit 15 of Exhibit B1-9-6, FBCU Evidence, Appendix G, Vander Weide Evidence.

⁴¹¹ Exhibit B1-9-6, FBCU Evidence, Appendix G, Vander Weide Evidence, p. 43.

⁴¹² Exhibit B1-9-6, FBCU Evidence, Appendix G, Vander Weide Evidence, p. 15.

A 38 Yes. If the CAPM were able to predict the relationship between risk and return for Canadian utilities, the average realized risk premium on Canadian utility stocks should equal the average Canadian utility's beta times the average realized risk premium on the S&P/TSX Composite: Average realized utility risk premium = $\beta_{\text{utility}} \times$ Average realized risk premium on the market. For the period 1983 through 2011, the average realized risk premium on the S&P/TSX Composite is 3.36 percent. Multiplying this 3.36 percent average realized risk premium by Dr. Booth's Canadian utility beta estimate of 0.5 produces an expected risk premium for Canadian utilities of 1.68 percent.

However, the average realized risk premium on the BMO Canadian utility stock data set for the period 1983 through 2011 is 8.77 percent, and the average realized risk premium on the S&P/TSX Utilities stock index for this period is 7.88 percent [see Vander Weide direct written evidence, Exhibit 15]. In addition, the average realized risk premium on the S&P TSX Utilities for the period 1956 – 2011 is 4.66 percent. Thus, the CAPM underestimates the realized risk premium for these two groups of Canadian utilities by approximately 300 to 700 basis points. Since the beta estimates for the Canadian utilities are less than 1.0, this finding also supports the conclusion in the literature that the CAPM underestimates the return on securities with betas less than 1.0.

263. With respect to beta, Dr. Vander Weide stated at the hearing:⁴¹³

All I'm saying is that the CAPM is a model that's forward looking, and it's perfectly -- I agree that it's a very reasonable model with regard to theory. However, we test whether a model is reasonable or not by whether it predicts the relationship between risk and return in practice. In my evidence, I show that it doesn't predict anywhere close -- if the results for the utilities were -- the risk premiums were within a percent or two of the market as a whole, I might say, "Well, that's a statistical variation." That when over 30 or 60 years is such a wide difference between the returns for the utilities and the market, I have to conclude that the CAPM just doesn't adequately predict.

I also find that the betas that are calculated looking -- the only betas that are presented in this proceeding other than my beta for U.S. utilities, look at historical returns also by month. And those betas are in the low -- like, .2 or .3. That's also ridiculous, as I explained in my rebuttal, because it implies a cost of equity that's in the range 3 to 6 percent. And nobody that I know of believes that the cost of equity for a utility is in the range 3 to 6 percent.

264. Ms. McShane described her analysis of the reliability of utility betas in Appendix A to her Evidence. Her analysis yielded findings consistent with those referenced by the Brattle

⁴¹³ Tr 6, 1038, l. 11 – 1039, l. 9 (Vander Weide).

Group and Dr. Vander Weide. Ms. McShane demonstrated that the actual risk-return relationship in the Canadian equity market has been the reverse of the expected relationship, i.e., higher (lower) risk stocks have resulted in lower (higher) returns. Over the longer term, achieved utility returns were significantly higher than would have been predicted by the equation *Return=Risk-Free Rate + Beta (Market Risk Premium)*.⁴¹⁴ Ms. McShane concluded: "The use of the calculated "raw" Canadian betas alone as an estimate of the relative risk adjustment, without consideration of the extent to which the two models have underestimated the utility return, will result in the underestimation of expected utility returns."⁴¹⁵

265. Dr. Vander Weide's evidence, along with the review conducted by Ms. McShane, supports the conclusions that (a) the true relative risk for low beta stocks like Canadian utility stocks is higher than their calculated betas indicate; and (b) that the CAPM does not explain the market returns experienced by low beta stocks, including utilities.⁴¹⁶

Portfolio Theory Ill-Suited to Regulated Utility Context

266. The CAPM methodology relates to how the investment in one asset (usually a security) affects the overall riskiness of a basket (or portfolio) of investments, with beta being the measure of relative risk. The CAPM assumes that an investor has a diversified portfolio of investments, which is a scenario that does not readily apply in the context of determining a fair return on a utility's investments in system assets.

267. Shareholders in Fortis Inc. (FEI's ultimate parent), and even Fortis Inc. itself, have the ability to diversify their investments by investing in other companies or other holdings. However, under the *UCA*, the Commission is not charged with setting investment returns for *investors in FEI* who might be considered to have the option of investing elsewhere in a portfolio of assets; rather, the Commission is charged with fixing rates for public utilities and is,

⁴¹⁴ Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, p. A-22 and A-23; Exhibit B1-24, BCUC-FBCU (McShane) IR 2.173.1 and 2.173.2.

⁴¹⁵ Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, p. 95 (including footnote 108); Exhibit B1-20, BCUC-FBCU (McShane) IR 1.56.2 demonstrates that the application of the "raw" utility betas to forecast bond yields would yield an unreasonably low cost of equity of 5%.

⁴¹⁶ Exhibit B1-20, BCUC-FBCU (Vander Weide) IR 1.88.3 and 1.88.5.

in this process, determining one of FEI's costs (the cost of capital) for the purpose of setting FEI's rates. This is conceptually different, despite the fact that the cost is determined with reference to traditional cost of equity tests.

268. In looking at FEI, i.e. the regulated entity, its investment in its utility system is equivalent to investing in a single asset, not a portfolio of assets; each incremental investment is subject to more or less the same risks.⁴¹⁷ FEI is committing capital to long-term assets while being subject to a statutory duty to serve customers. Once its capital is committed, it cannot simply be withdrawn and redeployed elsewhere.

269. Thus, regardless of the merits of the CAPM, it does not adequately capture the reality of the regulatory constructs applicable to FEI.⁴¹⁸

(e) Specific Issues in the Application of the Traditional CAPM and CAPM Variants to FEI

270. Dr. Booth recommended an ROE of 7.5% for FEI based on his application of the CAPM. His 7.5% recommendation reflected: (1) a forecast 3.0% long-term Canada bond yield for 2013; (2) a market risk premium of 5.0% to 6.0%; (3) a utility beta of 0.45 to 0.55; (4) adjustments to his initial results of 0.8% and 0.4% for lower than normal long-term Canada bonds and higher than normal long-term A-rated utility and Government of Canada bond yield spreads, respectively; and (5) a flotation cost adjustment of 0.5%. Dr. Safir applied the CAPM to both a sample of Canadian utilities and a sample of U.S. utilities. His Canadian utility CAPM was 6.47%, comprised of a forecast long-term Canada bond yield of 4.0%, a market risk premium of 5.96%, a beta of 0.36 and a flotation cost adjustment of 0.32%. Even if the Commission were to employ the traditional CAPM in estimating FEI's cost of equity, there are a number of specific issues with the way in which Drs. Booth and Safir employed the CAPM. The FBCU have first addressed the issues on the market risk premium, followed by the issues related to beta.

⁴¹⁷ Tr 8, 1502, l. 23 – 1503, l. 11 (Booth).

⁴¹⁸ Tr 8, 1504, ll. 4-24 (Booth), referring to Exhibit B1-50, pp. 79-80.

Issues Raised Regarding Equity Market Risk Premium

271. Ms. McShane, Dr. Booth and Dr. Safir gave weight to models that require the determination of the market risk premium for the period when the ROE allowed by the Commission will be in effect.⁴¹⁹ In the following paragraphs, we address the constituent elements of their respective analyses used to derive equity market risk premium estimates. Ms. McShane and Dr. Booth were in agreement that, in deriving a market risk premium with reference to historic data, it is necessary to review data from a long period of time from both the Canadian and U.S. markets. Dr. Safir's CAPM is also based on long-term historic averages. However, their respective approaches diverged in some key respects. Ms. McShane's approach to deriving the market risk premium should be preferred to the approaches taken by Drs. Booth and Safir.

Ms. McShane's Approach

272. Ms. McShane examined achieved returns and risk premiums back to the 1920s, with a focus on the post-World War II period. Ms. McShane's approach recognized that assessing data from long periods of time will account for a broad range of event types and avoids overweighting periods that represent "unusual" circumstances. Her focus on the achieved returns and risk premiums in the post-World War II period reflects the purpose of the equity risk premium model, which is to derive a forward-looking assessment of investor expectations that is informed by history. Post-World War II era data is most pertinent for informing investors' return expectations and requirements in the current economic and capital market environment.⁴²⁰

273. Ms. McShane found that during the 1947 to 2011 period equity market returns averaged 11.8% in Canada and 12.3% in the U.S.⁴²¹ Ms. McShane analyzed the trends in price/earning ratios and equity market returns and found no evidence of trends up or down in

⁴¹⁹ Ms. McShane addresses the equity market risk premium at pages 80 to 89 of her written evidence (Exhibit B1-9-6, FBCU Evidence, Appendix F).

⁴²⁰ Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, p. 80.

⁴²¹ Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, p. 80.

equity market returns over the post-World War II period.⁴²² There is no evidence that nominal equity market returns should be lower in the future due to lower average expected inflation in future versus historic inflation; average equity market returns were higher during periods of lower inflation than during periods of higher inflation.⁴²³ Ms. McShane concluded as follows with respect to the market risk premium:⁴²⁴

Given the absence of any material upward or downward trend in the nominal historic equity market returns over the longer-term, the P/E ratio analysis, and the observed negative relationship between real equity returns and inflation, a reasonable estimate of the expected value of the nominal equity market return is approximately 11.5%, based on Canadian equity market returns and supported by U.S. equity market returns. At the forecast 4.0% 30-year Government of Canada bond yield, the corresponding equity market risk premium is 7.5%. The analysis of Canadian equity risk premiums in conjunction with bond income returns supports a market equity risk premium of 7.25% to 7.5% at the forecast 4.0% 30-year Government of Canada bond yield. Based on U.S. data, a similar analysis supports an equity risk premium of 6.75% to 7.5%. With preponderant weight given to the Canadian data, the indicated equity market risk premium at the forecast 4.0% 30-year Government of Canada bond yield is in the range of 7.25% to 7.50%.

274. In estimating the historic market risk premium for the purpose of applying the CAPM, bond income returns, not historic total returns on bond investments, are the appropriate measure of the true risk-free rate.⁴²⁵ The CAPM estimates the equity return required over a risk-free rate. The bond yield, or the bond income return, reflects only the bond coupon payment portion of the total bond return; it represents the riskless component of the bond return. The total bond return, by contrast, includes capital gains and losses resulting from changes in interest rates over time. Using the bond income return in the calculation of historical risk premiums more accurately measures the historical equity risk premium above a true risk-free rate.⁴²⁶ Historical average bond returns, by contrast, overstate the expected bond

⁴²² Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, p. 83.

⁴²³ Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, p. 84.

⁴²⁴ Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, pp. 88-89.

⁴²⁵ Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, p. 83, footnote 92.

⁴²⁶ Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, p. 81, footnote 90.

returns.⁴²⁷ Dr. Vander Weide used bond income returns in estimating historic equity risk premiums for similar reasons.⁴²⁸ At the hearing, Dr. Vander Weide noted that bond holders always have the choice to get the risk-free rate by holding the long-term government bond to maturity and that is the only rate that is risk-free. When the total bond return is used in the historical market risk premium calculations, the resulting risk premium is not in relation to a risk-free rate, which the CAPM model requires. By calculating the market risk premium in relation to a total bond return that reflects year by year trading of bonds, and thus speculation on the change in interest rates, the result is a market equity “risk premium” above a high risk investment.⁴²⁹ Dr. Safir also used the bond income return in estimating historical market risk premiums, noting that the appropriate measure to use in determining the market risk premium is the income portion of the bond return.⁴³⁰

275. Ms. McShane stated that the market risk premium and the utility equity risk premiums must be adjusted to account for abnormally low long-Canada bond yields:

For 2012, the long-term (30-year) Government of Canada bond yield, based on the actual yields through the end of May 2012 and forecasts for the remainder of the year is 2.6%. For the three-year period 2013-2015, based on the available forecasts, the 30-year Canada bond is expected to yield approximately 4.0%.

Although the 30-year Government of Canada bond yield is expected to rise from its current historically and abnormally low levels over the next three years, it is still anticipated to average well below levels expected to prevail over the longer-term. Over the longer-term (2016-2022), Consensus Economics’ survey of economists anticipates that the 10-year Canada bond yield will average close to 4.7%. The corresponding 30-year Canada bond yield, assuming the historical long-term average spread between 30-year and 10-year Canada bonds of 35 basis points prevails, would be approximately 5.0%. The relatively low expected level of the risk-free rate needs to be expressly recognized in the estimation of the magnitude of market and utility equity risk premiums.”⁴³¹

⁴²⁷ Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, p. 80, footnote 80.

⁴²⁸ Exhibit B1-32, FBCU Rebuttal Evidence, McShane Rebuttal Evidence, p. 12.

⁴²⁹ Tr 6, 981, lines 6-9 (Vander Weide), Tr 6, 992, ll. 14 - 26 (Vander Weide), and Tr 6, 993, lines 1-10 (Vander Weide).

⁴³⁰ Exhibit C4-9, ICG Evidence, Safir Evidence, p. 13, l. 3-4.

⁴³¹ Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, pp. 78-79; Exhibit B1-20, BCUC-FBCU (McShane) IR 1.56.1.

276. Ms. McShane's forward-looking equity market risk premium of 7.25% to 7.5% took into account expected future equity market returns and the returns that are expected in the bond market, which is the forecast yield on long-term Government of Canada bonds. The FBCU submit that Ms. McShane's forward-looking market risk premium estimate is reasonable, and should be accepted by the Commission.

Dr. Booth's Approach to the Market Risk Premium

277. Dr. Booth shared with Ms. McShane the emphasis on reviewing data on achieved rates of return data and risk premia over long periods of time.⁴³² However, Dr. Booth measured equity returns above total annual government bond returns, which presume purchase and sale of bonds each year.⁴³³ As such, Dr. Booth was not measuring the historical equity market above a true risk free rate, as required by the CAPM, where the true risk free rate is better measured by bond income returns. As achieved bond total returns were higher than the bond income returns, Dr. Booth understated the long-term average achieved market risk premium above the risk free rate.⁴³⁴

278. From the long-term historical data, Dr. Booth concluded that his direct estimate of the market risk premium is under 5%.⁴³⁵ He stated, however, that he was willing to accept that the Fernandez survey puts the market risk premium in the range of 5.0% to 6.0%, which increased his own estimate from 5.0% to the mid-point of a 5.0% to 6.0% range.⁴³⁶ Ms. McShane noted the problems with the Fernandez survey, stating that it appears to contain significant circularity, as 85% of the respondents use published sources for their estimates, not their own estimates. She also noted that the survey provides no insight into whether the survey respondents link their market risk premium estimates to a long-term average risk free rate or

⁴³² Dr. Booth examines returns from the 1926 to 2011 period for Canada (he also provides data on the 1926 to 1956 and 1957 to 2011 sub-periods) and from the 1926 to 2011 period for the U.S. (he also provides data on the 1926 to 1956 and 1957 to 2011 sub-periods).

⁴³³ Exhibit C6-12, AMPC Evidence, Booth evidence, Appendix C, p. 3.

⁴³⁴ Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, p. 80, Table 10.

⁴³⁵ Exhibit C6-12, AMPC Evidence, Booth Evidence, Appendix B, p. 13.

⁴³⁶ Exhibit C6-12, AMPC Evidence, Booth Evidence, p. 5.

whether they make adjustments to account for differences between the current low levels of interest rates and the long-term average.⁴³⁷ As such, the Fernandez study should not be used as the basis for the market risk premium.

Dr. Safir's Approach to Market Risk Premium

279. Dr. Safir's Canadian equity market risk premium of 5.96% represents the 1924-2010 average difference between market equity returns and government bond income returns. In the FBCU's submission, although Dr. Safir's CAPM incorporates a more normal level of Government of Canada bond yields, his forecast of 4.0% remains materially lower than the long-term average bond income return of 5.7% on which the historical average market risk premium is based⁴³⁸ and the average expected to prevail over the longer-term of 5.0%.⁴³⁹ In the FBCU's submission, Dr. Safir's market risk premium estimate does not fully account for the disconnect between the low level of forecast long-term Government of Canada bond yields and market equity risk premium.

Issues Relating to Relative Risk Adjustments

280. Ms. McShane, Dr. Booth and Dr. Safir all recognized that utilities generally and the benchmark BC utility specifically are less risky than an average risk company and provided estimates of the relative risk adjustment to the equity market risk premium that is required. The following paragraphs summarize the experts' approaches and the issues with the approaches of Drs. Booth and Safir, and explain why Ms. Ms. McShane's approach and results are to be preferred.

Ms. McShane's Approach to Relative Risk Adjustment

281. Ms. McShane addressed the appropriate adjustment to the market risk premium to reflect the lower risk of FEI starting at page 89 of her written evidence. Ms. McShane's

⁴³⁷ Exhibit B1-32, FBCU Rebuttal Evidence, McShane Rebuttal Evidence, pp. 10-11.

⁴³⁸ Exhibit C4-9, ICG Evidence, Safir Evidence, p. 12.

⁴³⁹ Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, p. 30.

analysis of the risk adjustment to the market risk premium required for the benchmark BC utility, estimated at 0.65-0.70, incorporated multiple factors.

282. First, Ms. McShane considered relative total market risk for estimating the utility equity risk premium. This approach recognizes that investors are not perfectly diversified, do look at the risks of individual investments, and require compensation for assuming company-specific or investment-specific risk. Her analysis also recognizes that, while investors can diversify their portfolios, the stand-alone utility to which the allowed return is applied cannot diversify in this manner.⁴⁴⁰ The relative total market risk of utilities supports a risk adjustment to the market risk premium of 0.65-0.70.

283. Second, Ms. McShane's analysis of the required relative risk adjustment also took explicit account of the extent to which the calculated utility beta has historically understated experienced returns. That additional empirical analysis in isolation demonstrates that a utility relative risk adjustment in the range of 0.75 to close to 0.80 is reasonable.⁴⁴¹

284. Third, Ms. McShane's relative risk adjustment also considered that using utility betas adjusted toward the equity market beta of 1.0, rather than the calculated "raw" betas, partially recognize the observed tendency of low (high) beta stocks to achieve higher (lower) returns than predicted by the CAPM. Adjusted betas are a standard means of estimating betas, and are widely disseminated to investors by investment research firms, including Bloomberg, *Value Line* and Merrill Lynch. Their methodologies give approximately 2/3 weight to the calculated "raw" beta and 1/3 weight to the equity market beta of 1.0. While the specific adjustment formula reflects the tendency for betas in general to drift toward the market mean beta of 1.0, the relevance of the adjusted betas as they apply to utilities is that they are better predictors of returns than "raw" betas.⁴⁴² Ms. McShane provided a table that included the recent three-year Bloomberg betas for the five major Canadian utilities. The recent Bloomberg betas alone suggest that the relative risk adjustment based on recent Canadian utility betas is

⁴⁴⁰ Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, p. 90.

⁴⁴¹ Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, pp. 92-96.

⁴⁴² Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, p. 98.

approximately 0.62-0.64. The average reported *Value Line* beta for Ms. McShane's U.S. sample of 0.675 provides an additional indicator of the relevant risk adjustment for the benchmark BC utility.⁴⁴³

285. Ms. McShane's reliance on adjusted betas is consistent with the Commission's 2009 decision, in which it concluded that it:

...will give weight to the CAPM approach, but considers that the relative risk factor should be adjusted in a manner consistent with the practice generally followed by analysts so that it yields a result that accords with common sense and is not patently absurd." (page 45) As Ms. McShane indicated in her rebuttal testimony, "in my experience of over 30 years, I can confirm that utility cost of equity analysts routinely weight raw betas by 2/3 and the market beta of 1.0 by 1/3.⁴⁴⁴

Dr. Booth's Approach to Relative Risk Adjustment

286. Dr. Booth's CAPM results incorporated a relative risk adjustment reflecting a utility beta of 0.45 to 0.55, largely based on his judgment. Ms. McShane noted in her rebuttal evidence that Dr. Booth's selected beta bears no relationship to investor experience.⁴⁴⁵ Dr. Vander Weide also presented similar evidence.⁴⁴⁶

Dr. Safir's Approach to Relative Risk Adjustment

287. Dr. Safir's relative risk adjustment for Canadian utilities was 0.36. It was based on the most recent calculated betas, adjusted to what he considered to be the long-term industry average. Dr. Safir's estimate suffers from the same problem as Dr. Booth's, but to a greater extent. There is simply no market evidence that even remotely suggests that Canadian utility investors expect a risk premium that is 36% of the market risk premium.

⁴⁴³ Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, p. 98.

⁴⁴⁴ Exhibit B1-32, FBCU Rebuttal Evidence, McShane Rebuttal Evidence, p. 13.

⁴⁴⁵ Exhibit B1-32, FBCU Rebuttal Evidence, McShane Rebuttal Evidence, p. 12.

⁴⁴⁶ Exhibit B1-32, FBCU Rebuttal Evidence, Vander Weide Rebuttal Evidence, pp. 10-11.

Summary on Relative Risk Adjustment

288. The FBCU submit that the Commission should accept that the relative risk adjustment to be used in assessing the market risk of FEI as compared to the overall equity market in the context of the CAPM is in the range of 0.65-0.70. The evidence of Ms. McShane demonstrates that such a relative risk adjustment is reasonable, and the evidence of Dr. Vander Weide indicates that Ms. McShane's range is conservative, i.e., that a higher relative adjustment risk is justified. The FBCU submit there is no evidence to support either Dr. Booth's use of a beta value of 0.45-0.55 or Dr. Safir's 0.36 beta as indicative of the relative utility risk and risk premium required.

Dr. Booth's Adjustments to Unreasonably Low CAPM Results

289. From the estimated market premium of 5.0% to 6.0%, a utility beta of 0.45 to 0.55 (discussed above) and his forecast long-term Canada bond yield of 3.0%, Dr. Booth obtained CAPM results in the range 5.75 percent to 6.80 percent, inclusive of 0.50% for flotation costs.⁴⁴⁷ Dr. Booth then made two upward adjustments to his 5.75 percent to 6.80 percent CAPM results. First, he adjusted his results upward by 40 basis points to reflect his view of the impact on the utility cost of equity of the larger than normal spread between the yields on Canadian utility and long-term Canada bonds. Second, he adjusted his CAPM results upward by an additional 80 basis points to reflect his view of the impact of the U.S. Federal Reserve Bank's Operation Twist on U.S. and Canadian government bond yields. Dr. Booth's combined adjustment equal to 120 basis points effectively increased his estimated market risk premium by at least the same 120 basis points⁴⁴⁸ at his forecast 3.0% long-term Canada bond yield.⁴⁴⁹ Dr. Booth's adjustments produced an adjusted CAPM result in the range 6.95 percent

⁴⁴⁷ Exhibit C6-12, AMPC Evidence, Booth Evidence, p. 75.

⁴⁴⁸ Exhibit B1-32, FBCU Rebuttal Evidence, McShane Rebuttal Evidence, p. 11.

⁴⁴⁹ The Operation Twist adjustment of 0.80% increases the market equity risk premium by the same 0.80%. The 0.40% adjustment for higher than normal A-rated utility and Government of Canada bond yield spreads is specific to the utility risk premium. At Dr. Booth's utility beta of 0.50, the utility-specific credit spread adjustment translates into an adjustment to the market risk premium of 0.80% (incremental utility credit spread of 0.4% divided by beta of 0.50). Dr. Booth's adjusted market risk premium would thus be 7.1% (5.5% + 0.80% + 0.80%).

to 8.00 percent.⁴⁵⁰ Dr. Booth's decision to make what are largely judgmental "adjustments" to his CAPM results suggests that Dr. Booth himself recognizes that the CAPM underestimates both the market cost of equity and the cost of equity for utilities at this time. However, the adjustments are insufficient to achieve a reasonable ROE.

(f) Conclusions Respecting Equity Risk Premium Approaches Including the CAPM

290. Dr. Vander Weide and Ms. McShane together provided evidence on five different equity risk premium tests. The FBCU submit, for the reasons described above, that the outcomes of these tests are reasonable and should be given greater weight than the unreasonably low CAPM estimates advanced by Drs. Booth and Safir.

E. FINANCING FLEXIBILITY ADJUSTMENT

291. The Commission should employ a financing flexibility adjustment of at least 50 basis points to the estimated market-based utility cost of equity, consistent with past precedent and the expert evidence.

292. Ms. McShane explained in her evidence the rationale for a financing flexibility adjustment. While the actual market/book ratios of the companies are above 1.0, the DCF and risk premium results are "bare-bones" costs, i.e., the return which conceptually, if applied to the book value of equity, would cause the utility market/book ratio to equal 1.0. A reduction in the market/book ratio of the utility to a level below 1.0 is an indicator of the impairment of financial integrity. A financing flexibility allowance provides a cushion to ensure that financial integrity is not impaired.⁴⁵¹ The allowance is intended to cover three distinct elements: (1) flotation costs, comprising financing and market pressure costs arising at the time of the sale of new equity;⁴⁵² (2) a margin, or cushion, for unanticipated capital market conditions; and (3) recognition of the "fairness" principle.⁴⁵³ Ms. McShane characterized the financing flexibility

⁴⁵⁰ Exhibit C6-12, AMPC Evidence, Booth Evidence, p. 85.

⁴⁵¹ Exhibit B1-20, BCUC-FBCU (McShane) IR .1.75.1 and 1.75.2.1; Exhibit B1-24, BCUC-FBCU IR 2.177.6 and 2.177.7

⁴⁵² Exhibit B1-24, BCUC-FBCU (McShane) IR 2.175.1 to 2.175.4 elaborate on flotation costs.

⁴⁵³ Exhibit B1-20, BCUC-FBCU (McShane) IR .1.75.1 and 1.75.2.1.

allowance as “an integral part of the cost of capital as well as a required element of the concept of a fair return.”⁴⁵⁴

293. Ms. McShane, Dr. Vander Weide, Dr. Booth and Dr. Safir all agree that 50 basis points is a reasonable financing flexibility adjustment. A financing flexibility adjustment of 50 basis points added to each of the market derived cost of equity tests addresses the benchmark utility’s need to raise capital without impairing its financial integrity, i.e., the financial integrity standards.⁴⁵⁵ An adjustment of 50 basis points is common regulatory practice in Canada.⁴⁵⁶

294. Ms. McShane provided a rationale for increasing the size of the financing flexibility adjustment from 50 basis points to 100 basis points in the event the Commission were to determine to no longer give weight to the comparable earnings test.⁴⁵⁷ Ms. McShane stated:⁴⁵⁸

The cost of capital, as determined in the capital markets, is derived from market value capital structures. The cost of equity has been estimated using samples of proxy companies with a lower level of financial risk, as reflected in their market value capital structures, than the financial risk reflected in the corresponding book value capital structure. Regulatory convention applies the allowed equity return to a book value capital structure. When the market value equity ratios of the proxy utilities are well in excess of their book value common equity ratios, the failure to recognize the higher level of financial risk in the book value capital structure relative to the financial risk of the proxy samples of utilities, as recognized by equity investors, results in an underestimation of the cost of equity.

Full recognition of the disparity between the levels of financial risk in the market value capital structures and utility book value capital structures warrants an larger adjustment to the “bare bones” cost of equity in the event that only the market-derived cost of equity (equity risk premium and DCF) tests were to be given weight. Ms. McShane recommended an allowance of

⁴⁵⁴ Exhibit B1-20, BCUC-FBCU (McShane) IR .1.75.1 and 1.75.2.1.

⁴⁵⁵ Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, pp. 119-120.

⁴⁵⁶ Exhibit B1-20, BCUC-FBCU (McShane) IR 1.78.3.1.

⁴⁵⁷ Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, pp. 119-120.

⁴⁵⁸ Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, p. 119; Appendix F, pp. F-2 to F-4.

100 basis points, the mid-point of the indicated range, consistent with an implied market/book ratio of approximately 1.15x to 1.20x.⁴⁵⁹

F. APPLICATION OF THE COMPARABLE EARNINGS TEST TO FEI

295. In the 2009 Decision, the Commission recognized that assessing comparable earnings had historically been the primary means by which regulators had determined utility cost of capital. The Commission gave some weight to the results of the comparable earnings test employed by Ms. McShane in determining the benchmark ROE.⁴⁶⁰ In this proceeding, Ms. McShane had used the same comparable earnings analysis that the Commission had considered in 2009. Dr. Vander Weide undertook an analysis of allowed ROEs because the comparisons have value as “additional information on the reasonableness of FEI’s recommended ROE.”⁴⁶¹ The FBCU submit, for the reasons given in this section:

- There is a sound theoretical basis, and regulatory precedent, for applying the traditional comparable earnings test;
- Ms. McShane’s comparable earnings estimate⁴⁶² based on Canadian non-regulated comparables is reasonable and should be accepted;
- The Commission, in assessing the reasonableness of FEI’s overall return, should account for the higher allowed utility returns in the U.S.; and
- Dr. Safir’s comparable earnings test, which is simply a earnings/price ratio, should be given no weight.

(a) Rationale for Giving Weight to Traditional Comparable Earnings Test Results

296. There is a sound theoretical basis, and precedent, for applying the traditional comparable earnings test.

⁴⁵⁹ Exhibit B1-20, BCUC-FBCU (McShane) IR 1.75.2.1.

⁴⁶⁰ 2009 Decision, pp. 44-45.

⁴⁶¹ Exhibit B1-9-6, FBCU Evidence, Appendix G, Vander Weide Evidence, p. 45.

⁴⁶² Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, p. 118.

297. The seminal *Hope Natural Gas* decision spoke of returns “commensurate with returns on investment in other enterprises having corresponding risks.”⁴⁶³ The comparable earnings test gives effect to the comparable return element of the Fair Return Standard.

298. Under the current regulatory construct, the Commission-approved ROE and capital structure is applied to the book value of utility assets. The comparable earnings test is the only test that explicitly recognizes that the allowed return is applied to an original cost (book value) rate base. Since regulation is a surrogate for competition, the allowed return for regulated utilities should not seek to maintain the value of utility assets at book value when competitive firms facing a level of total risk similar to utilities are able to maintain the value of their assets considerably above book value. An allowed utility return based solely on market based tests that, by construction, maintains the value of utility assets at book value does not meet the comparable investment return requirement of the Fair Return Standard, and indeed is not comparable in the eyes of investors. Ms. McShane stated:⁴⁶⁴

The comparable earnings test is an implementation of the comparable returns standard, as distinguished from the cost of attracting capital standard. The comparable earnings test recognizes that utility costs are measured in vintaged dollars and rates are based on accounting costs, not economic costs. In contrast, the tests for estimating the cost of attracting capital rely on costs expressed in dollars of current purchasing power, i.e., a market-related cost of capital. In the absence of experienced inflation, the two concepts would be quite similar, but the impact of inflation has rendered them dissimilar and distinct.

The concept that regulation is a surrogate for competition may be interpreted to mean that the combination of an original cost rate base and a fair return should result in a value to investors commensurate with that of competitive ventures of similar risk. The fact that an original cost rate base provides a starting point for the application of a fair return does not mean that the original cost of the assets is a measure of their fair value. The concept that regulation is a surrogate for competition implies that the regulatory application of a fair return to an original cost rate base should result in a value to investors commensurate with that of similar risk competitive ventures. The comparable returns standard, as well as the principle of fairness, suggests that, if competitive firms facing a level of total

⁴⁶³ The relevance of *Hope Natural Gas* to the comparable earnings test is discussed in Exhibit A2-3, Brattle Group Report, p. 11.

⁴⁶⁴ Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, pp. 114-115.

risk similar to utilities are able to maintain the value of their assets considerably above book value, the return allowed to utilities should not seek to maintain the value of utility assets at book value. It is critical that the regulator recognize the comparable returns standard when setting a fair return.

The comparable earnings test remains the only test that explicitly recognizes that, in the North American regulatory framework, the return is applied to an original cost (book value) rate base. The persistence of moderate inflation continues to create systematic deviations between book and market values. Application of a market-derived cost of capital to book value ignores that distinction. The application of the results of the cost of attracting capital tests, i.e., equity risk premium and discounted cash flow to the book value of equity, unless adjusted, do not make any allowance for the discrepancy between the return on market value and the corresponding fair return on book value. The comparable earnings test, however, does. It applies "apples to apples", i.e., a book value-measured return is applied to a book value-measured equity investment.

299. At the hearing, Ms. McShane was asked to elaborate on why market value was not a relevant consideration in the application of the comparable earnings test. She stated:⁴⁶⁵

It is because of the utility paradigm. We don't set the return on market value. We take a market return and we apply it to book value. The book value of the assets, the book value of the equity. So, to me, because the regulatory framework here in North America is on original cost, we don't look at capital structures generally, on a market value basis. When we do the cost of capital, it's all related to book value. So somehow we need a measure of return that is done consistent with the same model that we use to set the returns. And that's why to me comparable earnings is relevant.

300. Regulators, including the Commission, have previously given weight to the comparable earnings results assessed on the basis of book values.⁴⁶⁶ The Commission had stated in the 2009 Decision that it "agrees with Terasen that it should take all three into account when establishing an ROE." It had gone on to say:

The Commission Panel has seen no evidence...that would persuade it to depart from the Commission's finding in that [2006 ROE] decision that the CE methodology had not outlived its usefulness when it commented [in 2006]: "However, the Commission Panel is not convinced that the CE methodology has

⁴⁶⁵ Tr 5, 735, II. 3-15 (McShane).

⁴⁶⁶ Exhibit B1-20, BCUC-FBCU IR 1.34.3.1.

outlived its usefulness, and believes that it may yet play a role in future ROE hearings.”⁴⁶⁷

301. The comparable earnings test was used by other tribunals including the NEB and the Alberta Energy and Utilities Board prior to the widespread adoption of AAMs in the mid-1990s. The National Energy Board had stated in 1992, for instance:

Both the comparable earnings and equity risk premium techniques provided the Board with useful information in its determination of the appropriate rate of return to be allowed on TransCanada’s deemed common equity component. However, the Board remains of the view that the results of the risk premium method should be given more weight than those of the comparable earnings method.⁴⁶⁸

The Alberta Energy and Utilities Board had stated in 1995:

In arriving at a rate of return on common equity, the Board considers that, for the purposes of this Decision, all three tests of measuring common equity return are relevant. The Board does not agree with the opinion of the witness for the ERWCG, Mr. Kahal, that the comparable earnings test is of little help or relevance to these hearings because it does not attempt to measure the market cost of equity for the companies in the comparison sample. Rather, the Board considers that there is still some merit in the comparable earnings test to the extent that regulation is considered a surrogate for competition and the comparable earnings test attempts to measure the achieved accounting rates of return on common equity of enterprises of similar risk. The Board does, however, recognize that there may well be distortion in the market to book ratios caused by the effects of inflation on retained earnings of companies, notwithstanding their similarity in risk. Similarly, the comparable earnings test may be sensitive to the selection of the business cycle under study.⁴⁶⁹

302. The Commission is on solid theoretical and legal ground in relying on the comparable earnings test.

⁴⁶⁷ 2009 Decision, pp. 44-45.

⁴⁶⁸ RH-2-92 (2/93) for TransCanada PipeLines, (p. 28), cited by Ms. McShane in BCUC-FBCU (McShane) IR 1.34.3.1

⁴⁶⁹ E95070 (6/95) for the City of Edmonton (p. 43), cited by Ms. McShane in BCUC-FBCU (McShane) IR 1.34.3.1.

(b) Analysis Based on Canadian Comparables

303. The comparable earnings test, as applied by Ms. McShane and employed by the Commission in 2009, first requires the selection of a sample of unregulated companies of reasonably comparable risk to the benchmark BC utility, FEI.⁴⁷⁰ The detailed criteria employed by Ms. McShane in selecting her sample of 21 comparable non-regulated companies are identified in Appendix E of her written evidence. Using non-utilities as comparables avoids the circularity that would result from the application of the test to other Canadian utilities with regulated returns. Although the comparables generally had higher business risks, those higher business risks were offset to some extent by a more conservative capital structure.⁴⁷¹ Ms. McShane accounted for the fact that the sample of unregulated companies are higher total risk (combined business and financial risk) by way of a downward adjustment to the resulting “raw” earnings of 125 to 150 basis points.⁴⁷² Ms. McShane also explained why no further downward adjustment is required for the unregulated companies’ market/book ratios.⁴⁷³ Ms. McShane’s comparable earnings test supports an allowed return on book value for the benchmark utility, FEI, in the range of 11.0% to 12.0%.⁴⁷⁴

(c) Analysis Based on U.S. Utility Allowed ROEs

304. There is a wide divergence between the returns on equity allowed by the regulators of U.S. utilities and the allowed returns on equity for utilities in Canada. The FBCU submit that there is no sound basis for the divergence, and U.S. allowed returns should be considered without adjustment in the context of ensuring that the allowed ROE for FEI meets the comparable return requirement of the Fair Return Standard.

⁴⁷⁰ There is agreement on this point as between Ms. McShane and the Brattle Group. See Exhibit A2-3, Brattle Group Report, p. 11.

⁴⁷¹ The companies are listed in Schedule 24 of Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence.

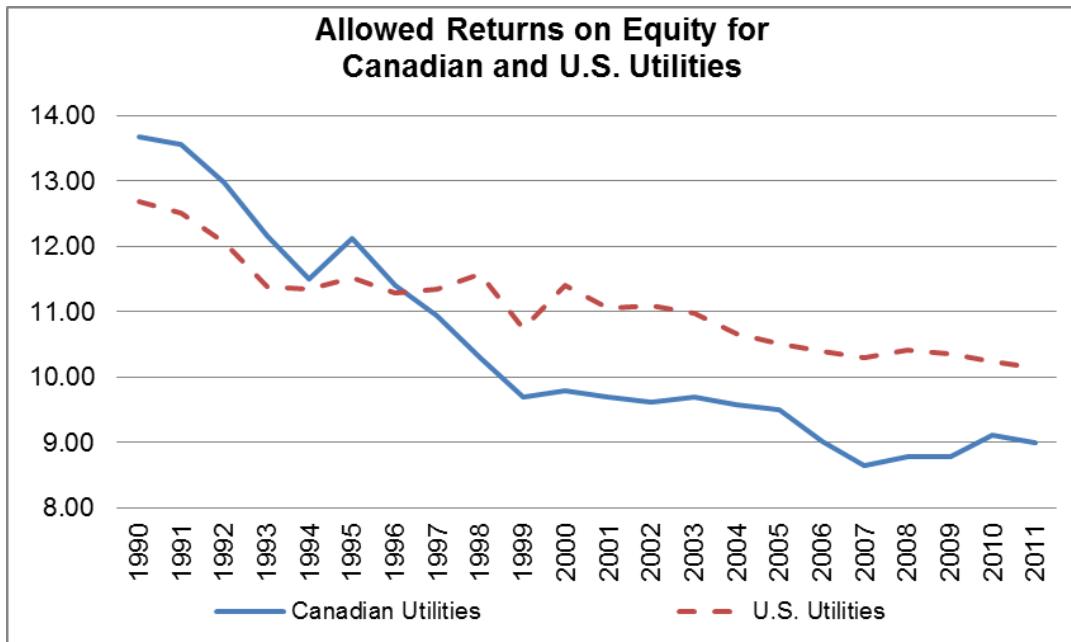
⁴⁷² Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, Appendix E, pp. E-4 to E-5; Exhibit B1-26, BCPSO-FBCU (McShane) IR 2.3.1.

⁴⁷³ Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, McShane Evidence, Appendix E, pp. E-5 to E-9. Exhibit B1-20, BCUC-FBCU IR (McShane) 1.34.2 and 1.74.1. The calculation of the risk adjustment is explained in Exhibit B1-20, BCUC-FBCU (McShane) IR 1.76.1.

⁴⁷⁴ Exhibit B1-9-6, FBCU Evidence, Appendix F, p. 117, II. 2972-2973.

305. The table below demonstrates the divergence in allowed returns in the U.S. and Canada:⁴⁷⁵

Figure 13 – Allowed Returns on Equity



306. Dr. Vander Weide's evidence was that from January 2010 through June 2012 the average allowed ROE for his groups of U.S. natural gas utilities has been 10.1 percent, and for electric utilities, 10.5 percent.⁴⁷⁶ At the same time, the average market value equity ratio for Dr. Vander Weide's comprehensive group of U.S. utilities at May 2012 was 60 percent, and for his smaller group of U.S. utilities, 62 percent (see his Exhibits 20 and 21). The market value equity ratio is notable because financial risk from a financial economist's perspective depends on the market value percentages of debt and equity in a company's capital structure rather than on the book value percentages of debt and equity in the company's capital structure.

307. The relevance of U.S. comparables in determining a Fair Return for the benchmark flows from the fact that a utility's cost of capital reflects an investor's opportunity cost, i.e. the expected return foregone when a decision is made to commit capital to an

⁴⁷⁵ Exhibit B1-20, BCUC-FBCU IR 1.9.1. The U.S. utilities include all electric and gas utilities cases reported by Regulatory Research Associates.

⁴⁷⁶ Exhibit B1-9-6, FBCU Evidence, Appendix G, Vander Weide Evidence, p. 44 and Exhibits 16 and 17.

alternative investment of comparable risk. Mr. Engen, Ms. McShane, Dr. Vander Weide and Mr. Coyne all agree that alternate investments of comparable risk are not confined to Canada.

- Mr. Engen observed that “[t]he globalization of Canadian financial markets is continuing and at an increasingly rapid pace”, and supported that observation with several pages of statistics on cross-border investment activity.⁴⁷⁷ He highlighted that the trend towards globalization of Canadian financial markets has been accelerated and supported by recent tax changes in Canada, which he described in his evidence.⁴⁷⁸ Mr. Engen concluded that “...expected returns on capital in other jurisdictions, particularly those in the U.S. regarding allowed returns on capital available to U.S. utilities, are relevant and should be taken into consideration when determining whether allowed returns on equity are fair and reasonable.”⁴⁷⁹
- Ms. McShane stated, in part, that equity markets are global; investors are increasingly committing equity funds beyond domestic borders. Canadian investors looking to commit funds to utility equity shares will compare returns available from Canadian utilities to returns available from utility shares globally, including returns from U.S. utilities (both market and allowed).⁴⁸⁰
- Dr. Vander Weide’s evidence was, in summary, that “...allowed ROEs and allowed equity ratios for U.S. utilities provides support for the conclusion that FEI’s allowed ROE in combination with its allowed equity ratio produces a return that fails to satisfy the fair rate of return standard.”⁴⁸¹

⁴⁷⁷ Exhibit B1-9-6, FBCU Evidence, Appendix E, Engen Evidence, pp. 12, 43, 45 and 65; Exhibit B1-20, BCUC-FBCU IR 1.23.1.

⁴⁷⁸ Exhibit B1-9-6, FBCU Evidence, Appendix E, Engen Evidence, pp. 42-50.

⁴⁷⁹ Exhibit B1-9-6, FBCU Evidence, Appendix E, Engen Evidence, pp. 10-11.

⁴⁸⁰ Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, p. 74.

⁴⁸¹ Exhibit B1-9-6, FBCU Evidence, Appendix G, Vander Weide Evidence, p. 47.

- In 2007, Mr. Coyne had been commissioned by the Ontario Energy Board to compare the returns allowed Ontario utilities to those allowed by American regulators. Mr. Coyne's conclusion in 2007 had been that "On the whole, there are no evident fundamental differences in the business and operating risks facing Ontario utilities as compared to those facing U.S. companies or other provinces' utilities that would explain the difference in ROEs."⁴⁸² Mr. Coyne's evidence in this proceeding was similarly that "...U.S. data provides a good check to be sure that the ROE is directionally aligned with litigated North American ROE determinations."⁴⁸³ Mr. Coyne also stated:⁴⁸⁴

The definition of a fair return has three elements. One of the elements is comparability. And there has been a wealth of evidence that's been prepared over the last several years on this issue, and I believe that most regulators have recognized that Canadian utilities raise capital on a global basis these days. And if not, they certainly compete globally for capital. So as a result of that, it is relevant as to what the returns are available to those investors in Canada and elsewhere.

308. In the 2009 Decision, the Commission expressed a willingness to consider U.S. data for the purposes of assessing comparability of returns:⁴⁸⁵

As for the US data, the Commission Panel agrees with the NEB and AUC that utilities in Canada need to compete for capital in the global market place, and regulatory agencies in Canada have to ensure that utilities subject to their jurisdiction are allowed a return that enables them to do so.

The Commission, in assessing the reasonableness of FEI's overall return in this proceeding, should also account for the higher overall utility returns in the U.S.

⁴⁸² 2009 Decision, p. 11.

⁴⁸³ Exhibit B1-20, BCUC-FBCU (Coyne) IR 1.131.3.

⁴⁸⁴ Tr 5, 771, II. 14-23 (Coyne).

⁴⁸⁵ 2009 Decision, p. 15.

(d) Dr. Safir's Application of the Comparable Earnings Test

309. The analysis that Dr. Safir refers to as his “comparable earnings” assessment, which indicates a return of 6.85% for FEI based on Canadian companies, amounts to an inappropriate application of a Earnings/Price (E/P) multiple as opposed to an assessment of the forward looking earnings of the comparable companies. Dr. Safir admitted he had calculated what amounts to an E/P ratio.⁴⁸⁶ It measures neither the earnings, nor the cost of equity of the comparable unregulated companies. The E/P ratio only measures the cost of equity when the companies are not expected to experience growth, which Ms. McShane demonstrated was not the case with the sample of companies. Ms. McShane also estimated the cost of equity for the sample of comparable companies based on sustainable growth to be in the range of 10.25% to 11.25%. Dr. Safir’s comparable earnings result of 6.85% is thus illogical, as it suggests the comparable companies have been earning economic returns well below their cost of equity, which their market valuations demonstrate is not the case.⁴⁸⁷ As Dr. Safir’s estimates are meaningless, the Commission should give no weight to them.

(e) Summary Regarding Comparable Earnings

310. The FBCU submit that the traditional comparable earnings approach, as applied by Ms. McShane, is an appropriate method of assessing FEI’s fair ROE. The FBCU also submit that the Commission should give greater weight to the U.S. utility allowed returns than in 2009 in light of the continued globalization of Canadian financial markets and the comparability of Canadian and U.S. utilities. The wide divergence of U.S. and Canadian utility ROEs, which coincided with the adoption of CAPM-based formulae in Canadian jurisdictions, is unwarranted based on a closer assessment of comparables.

G. PENSION PLAN FORECASTS

311. There were a number of questions during the hearing regarding the relevance of the 7% Canadian equity returns forecasted by FEI’s pension plan actuaries for the purposes of

⁴⁸⁶ Exhibit C4-11, FBCU-ICG (Safir) IR 1.12.1.

⁴⁸⁷ Exhibit B1-32, FBCU Rebuttal Evidence, McShane Rebuttal Evidence, p. 22-23.

determining pension funding liabilities. The 7% was determined on the basis of geometric average, which equates to approximately a 9% return on an arithmetic average basis; the experts in this proceeding use an arithmetic average to arrive at their market return and equity risk premium estimates.⁴⁸⁸ It was suggested that the fact that FEI's actuaries used a 9% (arithmetic) expected return for Canadian equities meant that FEI's ROE should be lower than 9%. There are three reasons why these estimates are of limited relevance in the current context.

312. First, such estimates can be reasonably expected to be conservative and not include underlying shifts in valuations.⁴⁸⁹ Ms. McShane explained the relevance of these caveats as they related to a TD report addressing market returns as follows:

So in this estimate there is significant uncertainty surrounding it. The fact that there could be great swings in valuation suggest that there could be a material difference between the 7 percent and what we would, as cost of capital experts, use as an estimate for cost of capital, which would be an arithmetic average, not a compound average.

313. Second, Ms. McShane also made the obvious point that pension fund managers and actuaries "...have absolutely no incentive to be anything but very very conservative because they have a lot on the line. A pension fund needs to be able to assure that it has funds available to pay its retirees."⁴⁹⁰ It is not reasonable to directly apply estimates assessed by actuaries for a different purpose, that of ensuring appropriate funding of pension plans, to this context. The direct application of the pension fund estimates to a utility cost of capital context would, at best, amount to the Commission employing the "lowest overall return" approach that it has previously dismissed on two occasions.

314. Third, the estimates of pension fund managers and actuaries relate to the market return that is expected on the market value of a diversified equity portfolio, whereas

⁴⁸⁸ Exhibit B1-9-6, McShane Evidence, p. 80 and Appendix A; Exhibit B1-9-6, Vander Weide Evidence, p. 39; Exhibit C6-12, AMPC Evidence, Booth Evidence, pp. 92 and 93 and Appendix B, page 3; Safir Evidence, p. 11. For further discussion see: Tr 3, 458, l. 20 – 459, l. 10 (McShane); Tr 5, 745, l. 10 – 747, l. 16.

⁴⁸⁹ Tr 3, 455, l. 19 – 456, l. 12 (McShane).

⁴⁹⁰ Tr 5, 747, ll. 2-8 (McShane).

the Commission is assessing a return on book value. In the FBCU's submission, it is not reasonable to anchor FEI's allowed earnings on its book value of equity to the expected return on the market value of a diversified equity market portfolio, particularly when, as is the case with the S&P/TSX Composite, the diversified equity market portfolio's market value is over 2X book value, reflecting earnings on book value in the range of 13.0% to 13.75%.⁴⁹¹ Further, tying FEI's allowed ROE to the expected market return on a diversified equity market portfolio ignores the risks specific to investing in utility assets and the returns that are available from investments that are of comparable risk to FEI.

315. In summary, Dr. Booth's reference to pension returns to support his low estimate is another instance where he has resorted to significant oversimplification for the sake of a good "sound bite". The Commission must look beyond the easy answer. Pension fund estimates are of limited relevance in determining a fair ROE for FEI. Using a market return for Canadian equities of 9% would yield an unreasonably low ROE for FEI.

H. CONCLUSIONS REGARDING FAIR ROE

316. In the 2006 Decision, the Commission Panel said it would seek to give weight to each of the three methods placed before it - the DCF approach, the equity risk premium approach, and the comparable earnings approach - in determining a suitable return.⁴⁹² In the 2009 Decision, the Commission Panel gave effect to each of the three methods. The FBCU submit that the Commission should again give weight to each of the three methods, applying the analysis of Ms. McShane and Dr. Vander Weide. Ms. McShane applied three equity risk premium tests, a risk-adjusted equity market risk premium test, a DCF based equity risk premium test, a historical utility equity risk premium test, several DCF models and a comparable earnings test. Ms. McShane summarized her overall conclusion as follows:⁴⁹³

The fair ROE for the benchmark BC utility can be viewed as falling within a range bounded by the market-based cost of equity inclusive of the minimal allowance

⁴⁹¹ Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, pp. 17 and E-9.

⁴⁹² 2006 Decision, p. 48.

⁴⁹³ Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, pp. 120-121.

for financing flexibility (10.1%) at the bottom end of the range and the comparable earnings test results (11.5%) at the upper end of the range. The specific weight to be given the comparable earnings test versus the market-based tests is largely a matter of judgment. The comparable earnings test is, in my opinion, entitled to significant weight. With preponderant weight (75%) given to the market-based tests, the fair ROE for the benchmark BC utility, i.e., FEI, is approximately 10.5%.

Dr. Vander Weide's recommendation of 10.5% was based on an average of the results of the DCF (10.15%), Ex Post Risk Premium (10.15%), and Ex Ante Risk Premium (11.25%) methods applied to his proxy groups of utilities.⁴⁹⁴ The combined analysis of Ms. McShane and Dr. Vander Weide provides ample evidentiary support that the current allowed ROE is still too low.

PART EIGHT: AUTOMATIC ADJUSTMENT MECHANISMS

317. This Part addresses why the Commission should continue to fix the allowed ROE of the benchmark utility between periodic proceedings, rather than adopting an AAM to adjust the ROE between those periodic hearings. The rationale for why the Commission discontinued the AAM remains valid today. Meeting the Fair Return Standard is not optional.⁴⁹⁵ All of the experts agree that we are still experiencing unusually low interest rates, and the ability of any AAM to produce fair results is far from certain. The ROE set by the Commission in this proceeding should remain in place until the next comprehensive cost of capital review for the following reasons, discussed below:

- (a) There is no efficiency gain associated with implementing an AAM, if there are to be periodic reviews in any event;
- (b) The Fair Return Standard is best met in the intervening years until the next comprehensive cost of capital reviews by holding the ROE constant;

⁴⁹⁴ Exhibit B1-9-6, FBCU Evidence, Appendix G, Vander Weide Evidence, p. 41.

⁴⁹⁵ Exhibit B1-9-6, FBCU Evidence, Appendix I, Coyne Evidence, p. 12.

- (c) Dr. Safir is proposing to return to an AAM that has already been rejected by the Commission, and is using inputs that will result in ROEs declining in the face of rising long-term Canada bond yields; and
- (d) The AAM proposed by Dr. Booth is biased downwards.

A. NO EFFICIENCY BENEFIT

318. The primary rationale advanced for using an AAM is efficiency. Everybody involved in this proceeding recognizes the resources and time it has involved. However, the perceived efficiency benefits are illusory in the present circumstances.

319. The original AAM brought efficiency benefits because the prior practice had been to address ROE and capital structure in annual revenue requirements proceedings. Now, however, nobody is advocating a return to annual cost of capital proceedings. The options tabled by the parties in this proceeding are (a) periodic cost of capital review with no change in ROE in the interim (FBCU, Mr. Coyne, Ms. McShane and Dr. Vander Weide); and (b) periodic cost of capital reviews with annual formula-driven ROE changes in the interim (Dr. Booth and Dr. Safir⁴⁹⁶). As all parties are contemplating a periodic review, the regulatory burden associated with either option is the same.⁴⁹⁷

320. Implementing an AAM without contemplating periodic reviews would be unreasonable. History has shown that AAMs require updating on a regular basis. Although Dr. Booth likes to portray the old BC formula as having worked perfectly well for 15 years leading up to the financial crisis⁴⁹⁸, problems with the AAM preceded the financial crisis.⁴⁹⁹ There had been regular reviews of, and adjustments to, the old AAM in part due to concerns that the ROEs

⁴⁹⁶ Exhibit C4-9, ICG Evidence, Safir Evidence, p. 38. Dr. Safir recommends that a new cost of capital hearing be held after a three year period.

⁴⁹⁷ Tr 3, 326, ll. 9-17 (Dall'Antonia).

⁴⁹⁸ E.g. Exhibit C6-12, AMPC Evidence, Booth Evidence, p. 95.

⁴⁹⁹ Tr 5, 799, ll. 9-11 (Coyne).

produced were not meeting the Fair Return Standard.⁵⁰⁰ The crisis had the effect of exacerbating the problems.⁵⁰¹

B. ABILITY OF AAM TO MEET FAIR RETURN STANDARD

321. The only logical rationale for implementing an AAM in the absence of efficiency benefits would be if it could be demonstrated that an AAM better achieves the Fair Return Standard than a fixed ROE in the intervening years between comprehensive cost of capital reviews. The FBCU submit:

- Any formula relies on a limited number of simplified inputs, which can never capture the complex factors affecting ROE; and
- The evidence suggests that the likely candidates as variables in an AAM – long-Canada bond yields and corporate spreads – are still being affected by atypical market conditions.

The FBCU submit that in light of these issues it is no surprise that the vast majority of jurisdictions use periodic rate cases for setting rates and ROE, and that the number of jurisdictions employing formulaic approaches has decreased since the 2010 Concentric Report was issued.⁵⁰²

(a) Imperfect Proxy

322. A key shortcoming of any formula is its necessary reliance on imperfect proxies.⁵⁰³

⁵⁰⁰ See Exhibit B1-9, p. 28.

⁵⁰¹ Tr 5, 799, II. 9-11 (Coyne).

⁵⁰² In Canada, only two provinces remain on a formula (Ontario and Quebec). In the U.S., four states have adopted formulaic approaches (California, Mississippi, Vermont, and Illinois). Exhibit B1-9-6, FBCU Evidence, Appendix I, Coyne Evidence, pp. 5, 13.

⁵⁰³ Exhibit B1-9-6, FBCU Evidence, Appendix I, Coyne Evidence, p. 11.

323. As is evident from the scope of the present proceeding, the Fair Return Standard requires a significant degree of analysis, market information, and judgment in its implementation. Setting the required return to meet the Fair Return Standard is inevitably a matter of both analysis and judgment, both of which are circumscribed when a formula is in use.⁵⁰⁴ Formula parameters are typically static and based on historic relationships. Those fundamental relationships may shift, leaving the formula out of touch with current market conditions.⁵⁰⁵ The change in the relationship between the cost of equity and long Canada bond yields, discussed below, is a good example of this issue. When the Commission eliminated the formula approach in its 2009 Decision it had found that a single variable is unlikely to capture the many causes of changes in ROE and that in particular the recent flight to quality had driven down the yield on long-term Canada bonds, while the cost of risk has been priced upwards.⁵⁰⁶ A formula also cannot reflect potential changes in equity costs for the benchmark utility in relation to the broader industry.⁵⁰⁷ In Mr. Coyne's view, a formula that consistently ensures compliance with the Fair Return Standard over time has yet to be developed.⁵⁰⁸

324. The issues associated with using proxies can compound over time as the formula output becomes the default position for every cost of capital review.⁵⁰⁹ The legitimacy of the formula output to serve as the default is uncertain, as the formula output being treated as the default will inevitably have failed to reflect the Fair Return Standard on one side or the other. As Major and Priddle noted in their evaluation of the formulae in use in Canada "its mechanistic character suspends for lengthy periods the previously-valued application of informed judgment to the results of alternative methods of achieving the FRS required by Canadian jurisprudence in ROE awards."⁵¹⁰

⁵⁰⁴ Exhibit B1-9-6, FBCU Evidence, Appendix I, Coyne Evidence, p. 11.

⁵⁰⁵ Exhibit B1-9-6, FBCU Evidence, Appendix I, Coyne Evidence, p. 11.

⁵⁰⁶ 2009 Decision, pp. ii, 73.

⁵⁰⁷ Exhibit B1-9-6, FBCU Evidence, Appendix I, Coyne Evidence, p. 11.

⁵⁰⁸ Exhibit B1-9-6, FBCU Evidence, Appendix I, Coyne Evidence, p.11.

⁵⁰⁹ Exhibit B1-20, BCUC-FBCU (Coyne) IR 1.124.1.

⁵¹⁰ Exhibit B1-13, BC Util Cust-FBCU (Coyne) IR 1.2.4.

325. Mr. Coyne said at the hearing, before referring to the Major and Priddle report that:⁵¹¹

As odd as the answer may sound, I think the answer is the fixed rate is preferable, at least through a three year period. As you get out to five years, I become a little bit more concerned, because market conditions, the longer you go out, the greater the odds are that market conditions will shift.

And the reason why the answer may not sound logical is that the history has shown us that when a formula is in place it becomes the default, and it's very difficult to displace the formula. It took many, many years across many jurisdictions before the formula became more completely embedded, alternatives were considered, and most jurisdictions terminated its use of the existing formula. But there is a lot of momentum associated with a formula that's in place.

326. Ms. McShane, Dr. Vander Weide, Dr. Safir and the Brattle Group recommended relying on multiple tests to derive the benchmark ROE, with the Brattle Group explaining that this is best practice. The Commission's 2009 Decision had also recognized the value of applying multiple tests, including ERP, CAPM, DCF and comparable earnings. It is difficult to reconcile the best practice with an AAM that is based solely on ERP or CAPM, and driven by changes in interest rates.

(b) Current Conditions Are Particularly Problematic for Using AAM

327. Even if the Commission sees value in AAMs generally, this is not the time to implement one. There is unanimity among the experts that we are in the midst of an unusual business cycle, at least as far as interest rates are concerned.

328. The general reliance of AAMs –both those proposed by Drs. Safir and Booth and those in effect in Ontario and Quebec - on changes in long-term Canada bond yields represents one of the greatest difficulties associated with reinstating an AAM at this time. The historic relationship between utility cost of equity and Government bond yields, which in 2009 the Commission had found was lacking, still does not hold. As referenced previously in these

⁵¹¹ Tr 5, 801, l. 14 -802, l.2 (Coyne).

submissions in the context of the CAPM discussion, the recent downward trend in long-term Government of Canada bond yields has little, if any, correlation with trends in the market cost of equity.⁵¹² Ms. McShane concluded that, “in light of the persistently unsettled capital markets and the unstable relationships between the utility cost of equity and Government bond yields”, an AAM based on bond yields has the potential to distort, and unfairly suppress, the allowed ROE. It would be, in her view, difficult to construct an ROE AAM at this time that would successfully capture prospective changes in the utility cost of equity.⁵¹³

329. Mr. Coyne shared Ms. McShane’s assessment of the issues associated with adopting an AAM at this time. He noted that incorporating corporate bonds spreads into an AAM is not a panacea. Like long Canada bond yields, corporate bond yields are also affected by factors unrelated to the cost of equity. Factors such as monetary and government policy and the preferences and risk tolerances of investors can significantly alter the relationships between the required returns on bond and equity securities.⁵¹⁴ Mr. Coyne stated:⁵¹⁵

Neither bond yield (government or corporate) provides a complete picture of required equity returns. Common equity holders are exposed to higher risk than bond holders, and both classes of investment are subject to market circumstances (e.g., the flight to safety lowering government bond yields) that may impact that security but not the other.

(c) Consideration of an AAM Should Be Deferred

330. Although the Commission’s original AAM can be improved, no formula will yield results that consistently meet the Fair Return Standard.⁵¹⁶ An AAM is particularly problematic in the present unusual market conditions. Ms. McShane expects that as the long-term Canada bond yields rises to a more normal level, the relationship between utility dividend yields and long-term Government bond yields would revert to a relationship that more closely resembles what was observed before the onset of the financial crisis. However, when that might occur is

⁵¹² Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, p. 31.

⁵¹³ Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, p. 33.

⁵¹⁴ Exhibit B1-9-6, FBCU Evidence, Appendix I, Coyne Evidence, p. 11.

⁵¹⁵ Exhibit B1-9-6, FBCU Evidence, Appendix I, Coyne Evidence, p. 10.

⁵¹⁶ Exhibit B1-9-6, FBCU Evidence, Appendix I, Coyne Evidence, p. 1.

uncertain, as low government bond yields are expected to persist for an extended period of time.⁵¹⁷ Dr. Booth and Dr. Safir appear to agree that normal bond yields will not arrive until well after three years from now.⁵¹⁸ Given that is the case, it makes little sense to implement an AAM now.

C. DR. SAFIR'S PROPOSAL TO RETURN TO THE OLD AAM

331. Dr. Safir is proposing to return to the old formula⁵¹⁹, with the only difference being the starting point from where he measures the changes in the forecasted long Canada bond yields. Returning to the old AAM that has previously been rejected for compelling reasons is a step backwards.

332. Ms. McShane, for instance, reinforced the concern with how the old AAM defined the relationship between ROE and the forecast long-term Canada bond yield. She further states:⁵²⁰

The analysis demonstrates that the utility equity risk premium is higher at lower levels of interest rates than it is at higher levels of interest rates, i.e., there is an inverse relationship between long-term government bond yields and the utility equity risk premium.

However, this specific analysis indicates that utility equity risk premiums are much more sensitive to, and the corresponding utility cost of equity much less sensitive to, long-term government bond yields than was assumed by the automatic ROE adjustment formula adopted by the BCUC in 2006 and terminated in 2009. That formula assumes that the utility equity risk premium increases/decreases by 25 basis points for every one percentage decrease/increase in the long-term Government of Canada bond yield.

333. Dr. Safir's modification of using a five-year average forecast long Canada bond yield as the baseline in the formula is also problematic. It suppresses any upward movement in

⁵¹⁷ Exhibit B1-20, BCUC-FBCU (McShane) IR 1.119.1

⁵¹⁸ Tr 8, 1629, ll. 5-12 (Booth); Tr 7, 1192 ll. 17-23 (Safir).

⁵¹⁹ The AAM in existence prior to 2009 resulted in ROE increasing by seventy-five basis points when the forecasted long-term Canada bond yield increased by one hundred basis points and declining by seventy-five basis points when the forecasted long-term Canada bond yield decreased by one hundred basis points. Dr. Vander Weide summarizes the other elements of the AAM at pp.47-48 of his written Evidence.

⁵²⁰ Exhibit B1-9-6, FBCU Evidence, Appendix F, McShane Evidence, starting at p. 102.

ROEs despite increases in long Canada bond yields. Reliance on an average as a baseline means that so long as the actual forecast long-term Canada bond yield is below the five year average forecast the formula will not reflect any increases in the forecast long-term Canada bond yield in the allowed ROE. It is questionable whether the forecast long Canada bond yield will exceed the five year average before the next periodic review is held.

334. Dr. Safir's modification to use the five year average forecast is intended to compensate for the present unusually low interest rates. However, the more appropriate response to the present low interest rates is to postpone any consideration of a formula, not implement a "quick fix" that artificially suppresses the ROE.

D. AAM PROPOSAL OF DR. BOOTH IS BIASED DOWNWARDS

335. Dr. Booth's proposed mechanism incorporates changes in corporate credit spreads as an additional variable, and introduces a floor on the forecast long Canada bond yield input in recognition of the present artificially low forecast yields. Introducing corporate credit spreads is the very change that, in 2009, Dr. Booth characterized as "bad regulatory practice".⁵²¹ Moreover, his formula is biased downwards.

336. The current long Canada bond yield is approximately 2.4%, well below the floor of 3.8% that Dr. Booth employs.⁵²² Dr. Booth, like everyone else, expects forecast long Canada bond yields to rise from their current rock-bottom levels. However, Dr. Booth does not expect forecast yields to rise above 3.8% until at least three years from now:⁵²³

MR. GHIKAS: Q: Now, Dr. Booth, just sticking with understanding how the formula you proposed works, can we agree that because of the 3.8 percent floor on the Long Canada forecast yields, the only thing under your formula that can affect the ROE until we get above the 3.8 percent is the credit spreads.

DR. BOOTH: A: That's correct. And in fact, given the forecast Long Canadas I would say basically that's almost a fixed rate forecast or fixed rate ROE for say

⁵²¹ Tr 8, 1511, l. 25 – 1512, l. 6 (Booth).

⁵²² Tr 8, 1627, ll. 19-22 (Booth).

⁵²³ Tr 8, 1629, ll. 5-13 (Booth).

the next three years. Because we are getting more and evidence that we do not expect to see Long Canada bond yields above 3.8 percent over the next two or three years.

337. The combination of rock-bottom forecast yields and an expectation of slowly rising interest rates has two implications. First, because interest rates are rock bottom, further declines are not likely; in other words, the floor of 3.8% is not really there to protect FEI from further decreases in forecast yields. Second, it means that any increases in the forecast long Canada bond yields between today and when the forecast yields equal 3.8% (which Dr. Booth expects will not occur for at least three years) are not going to be reflected in an increased ROE.

338. It became evident during the cross-examination of Dr. Booth that he is expecting credit spreads to fall during the same period when forecast long Canada bond yields will be below the 3.8% floor.⁵²⁴ Mr. Coyne shares this expectation.⁵²⁵ By virtue of how Dr. Booth's formula works, the net result will be a progressively lower benchmark ROE after 2013 without consideration of factors affecting equity costs. The Commission should reject Dr. Booth's formula as biased downwards and unfair.

E. CONCLUSION ON AAM

339. The Commission should set the ROE with the expectation that it will remain in place for at least three years but no more than five years. A periodic review remains the best means of ensuring that the allowed ROE reflects the true cost of equity of the benchmark and meets the Fair Return Standard. The formulae proposed by Dr. Safir and Dr. Booth both present problems when applied over time, as seen in the backcast and stress test analyses conducted by Mr. Coyne.⁵²⁶ If the Commission requires a ROE AAM as an outcome of this Proceeding, the Commission should at a minimum seek to rectify some of the most problematic elements of the old formula and the objectionable elements of Dr. Booth's proposal. Any new formula would need to introduce new factors that would address changes in utility equity risk

⁵²⁴ Tr 8, 1518, ll. 1-13 (Booth).

⁵²⁵ Exhibit B1-32, FBCU Rebuttal Evidence, Coyne Rebuttal Evidence, p. 4.

⁵²⁶ Exhibit B1-32, FBCU Rebuttal Evidence, Coyne Rebuttal Evidence, pp. 4-5.

premium, not solely changes in Government of Canada bond yields, and any adjustment factor would need to reflect the sensitivity to change in bond yields to ROE.⁵²⁷

PART NINE: SMALL UTILITIES WITHOUT THIRD-PARTY DEBT

340. In the MFR, the Commission identified a number of issues related to the use of a deemed interest rate for the debt component of a deemed capital structure (“deemed debt”), with specific reference to utilities without third-party debt. Ms. McShane addressed those issues in her evidence, and the FBCU have outlined their position on the specific issues in their Evidence. In this Part, the FBCU make the following points regarding the use of deemed debt for small utilities without third party debt:

- (a) Deemed debt is appropriate for small utilities where raising debt is inefficient, and deemed debt rates and duration should reflect the particular circumstances of each utility;
- (b) There are several reasonable means for determining the deemed interest rate in appropriate circumstances; and
- (c) Annual adjustments in the interest rate by way of an interest AAM is inappropriate for the nature of the assets being financed, and unnecessarily introduces interest rate risk.

A. CIRCUMSTANCES IN WHICH DEEMED DEBT IS APPROPRIATE

341. Deemed debt generally makes sense for small utilities, such as a separate division or class of service within a larger regulated utility, or for a regulated utility subsidiary within a larger corporate organization where either: (i) the high costs of a debt issuance relative to the size of the issue makes the effective debt cost higher than it would otherwise be; or (ii) where the size of the utility precludes it from accessing appropriate debt terms.⁵²⁸ The

⁵²⁷ See Exhibit B1-9, p. 28.

⁵²⁸ Exhibit B1-20, BCUC-FBCU IR 1.140.2.

assessment as to whether deemed debt is appropriate and efficient should involve some judgment to ensure that the use of deemed debt is limited to circumstances where it is efficient to do so.⁵²⁹ It is reasonably clear that deemed debt would be appropriate for FEW (a separate legal entity), the Fort Nelson Division of FEI, and FAES.⁵³⁰

342. The deemed debt rates and term for small utilities should not necessarily be the same in all cases. Utilities for which a deemed cost of debt might be appropriate may have differing risk profiles; FEW, for instance, is not the same as one of FAES' TES projects or Corix's UniverCity. The appropriate term of debt may also vary even among projects with a broadly similar risk profile.⁵³¹ The term of debt should be matched to the term of a contract or a term that represents the longer-term nature of the assets, i.e., long-term assets are financed with long-term debt. Ms. McShane articulated the approach as follows:

...the term of the contract should be the first consideration, as a lender would look to the commitments made by customers in its determination of the term of a loan it was willing to extend. The state of the capital markets should be a supplementary check on the reasonableness of the deemed term of the debt, as a protection to the customers who bear the cost. If utilities that would normally raise debt in the public markets are not able to raise long-term debt on reasonable terms and conditions due to capital market conditions, it would not be reasonable to allow small utilities to charge deemed long-term debt rates which reflect those same capital market conditions.⁵³²

B. OPTIONS FOR DETERMINING DEEMED INTEREST RATE

343. There are at least three reasonable options for determining the deemed interest rate applicable to a small utility.

- One option identified by the FBCU is to assign a credit rating on a stand-alone basis, and then obtain indicative quotes from investment dealers or banks based

⁵²⁹ Exhibit B1-20, BCUC-FBCU IR 1.140.2.1.

⁵³⁰ Exhibit B1-20, BCUC-FBCU IR 1.140.1; Exhibit B1-24, BCUC-FBCU IR 2.186.2.

⁵³¹ Exhibit B1-24, BCUC-FBCU IR 2.192.1.

⁵³² Exhibit B1-20, BCUC-FBCU IR 1.148.1

on the assigned credit rating.⁵³³ Using proxy companies that are engaged in the power sector or energy infrastructure can help to minimize subjectivity.⁵³⁴ This approach is consistent with the stand-alone principle, and is how FEW has financed the debt component of its capital structure.⁵³⁵

- An alternative option identified by the FBCU and Ms. McShane would be to use the embedded cost of debt of the issuing entity as the deemed interest rate and allocate the deemed debt and deemed interest rate based on an approved capital structure. Currently, Fort Nelson debt is deemed and the rate is the embedded cost of debt of FEI.⁵³⁶ The use of embedded cost implicitly recognizes that, typically, when new funds are raised by an issuer, those funds are not colour-coded for, and traced to, a particular project or service. It is an administratively efficient way to allocate debt issued by a single regulated entity, allows the benefits of issuing all debt centrally to be shared, and provides a reasonable degree of assurance that the regulated entity raising the debt will be able to recover its actual incurred costs of debt.⁵³⁷
- Commission Staff presented a reasonable alternative, with different pros and cons, in IR BCUC-FBCU IR 1.188.6. Commission counsel presented a similar concept to the FBCU's witness panel at the hearing.⁵³⁸ Ms. McShane was generally supportive of this alternative as well, with the caveat that she disagreed with the use of "A"-rated proxies.

⁵³³ Exhibit B1-20, BCUC-FBCU IR 1.144.2.

⁵³⁴ Exhibit B1-20, BCUC-FBCU IR 1.141.5.1 and 1.141.5.2. Any company in the utility industry in Canada that issues public debt might be considered a proxy company. The deemed interest rates for Tsawwassen Springs and Delta School District TES projects have been derived from BBB utility issues, Altagas Ltd. and Emera Ltd. Exhibit B1-20, BCUC-FBCU IR 2.187.1; 2.188.3.

⁵³⁵ Exhibit B1-20, BCUC-FBCU IR 1.141.1.

⁵³⁶ Exhibit B1-20, BCUC-FBCU IR 1.141.1 and 1.141.6. The first option could also be applied to Fort Nelson: Exhibit B1-24, BCUC-FBCU IR 2.186.3.

⁵³⁷ Exhibit B1-20, BCUC-FBCU (McShane) IR 1.148.8.

⁵³⁸ Exhibit A2-43.

344. Ms. McShane cautioned that for any method that involving the use of credit ratings of proxy companies, care should be taken to employ reasonable credit ratings. An appropriate credit rating for small utilities would be BBB to BBB(low), as the inherent risks of small size would preclude them from achieving higher ratings.⁵³⁹ As it is much more likely that the small utility would be BBB on a standalone basis, it makes sense to use a BBB yield as the benchmark to begin with rather than using "A"-rated proxies.⁵⁴⁰ BBB-rated proxies were used for the Delta School District, Tsawwassen Springs and Marine Gateway TES projects.⁵⁴¹

C. ANNUAL ADJUSTMENTS INTRODUCE INTEREST RATE RISK

345. The bulk of costs for TES projects are upfront costs. The sustaining capital costs over the term of the contract will be small in comparison. The use of fixed-rate term debt reflects the upfront investment and long-term nature of the fixed assets being financed. Given the smaller projected size of the sustaining costs, it would be more appropriate to allow the same rate to be maintained over the term of the contracts.⁵⁴² There is no upside to varying the imputed cost of debt annually, whether by AAM or otherwise, for what in principle should be viewed as a fixed-rate debt instrument. Varying a long-term debt rate annually potentially exposes the issuer or the customer to avoidable interest rate risk.⁵⁴³

D. DEEMED SHORT-TERM DEBT

346. The appropriate portion of short-term debt will vary by utility and depend on the situation of the utility in question.⁵⁴⁴

⁵³⁹ Exhibit B1-20, BCUC-FBCU (McShane) IR 1.141.12; (McShane) IR 1.147.1. Tr 5 681, II. 6-20 (McShane); Exhibit B1-24, BCUC-FBCU IR 2.191.1 addresses an appropriate short-term debt rating that would correspond to the BBB/BBB(low).

⁵⁴⁰ Tr 5, 680, II. 5-11(McShane).

⁵⁴¹ Exhibit B1-24, BCUC-FBCU IR 2.188.5.

⁵⁴² Exhibit B1-24, BCUC-FBCU IR 2.187.2; 2.192.2.

⁵⁴³ Exhibit B1-20, BCUC-FBCU IR 1.141.10; 2.188.7.

⁵⁴⁴ See Exhibit B1-9, p.31; Exhibit B1-20, BCUC-FBCU IR 1.143.2; Exhibit B1-24, BCUC-FBCU IR 2.189.1.

E. SUMMARY REGARDING DEEMED DEBT

347. The FBCU submit that the Commission should adopt deemed debt only for small utilities for whom stand-alone financing is inefficient. The deemed interest rate and the term should be set with reference to the specific characteristics of the utility in question. Varying the interest rate with some form of interest AAM is undesirable from the perspective of the utilities and customers alike.

PART TEN: CONCLUSION AND ORDER SOUGHT

348. Although the Commission initiated this proceeding in response to changes in the capital markets since the 2009 Decision, the evidence demonstrates that capital markets remain volatile and investors remain apprehensive and sensitive to world developments. The market cost of equity has risen since Fall 2009.

349. FEI's overall business risk is similar – no lower, and perhaps somewhat higher – than in 2009. FEI faces essentially the same short-term risk today that it faced in 2009 and in prior years; it is a forecast risk that can be partially mitigated, but never eliminated, by careful management and deferral accounts. FEI's business fundamentals and operating environment remain very similar to what they were three years ago. The overriding similarities between today and the circumstances at the close of the 2009 proceeding supports maintaining FEI's existing capital structure.

350. The Commission should continue with its approach of applying multiple tests in the estimation of a fair ROE. Ms. McShane and Dr. Vander Weide have together used multiple DCF approaches, multiple equity risk premium tests, and the comparable earnings approach to assess FEI's cost of equity. Their evidence should be given significant weight and be preferred to the evidence of Drs. Booth and Safir. Dr. Booth's sole reliance on the CAPM is unwarranted, and his CAPM estimate is unreasonably low. Dr. Safir's CAPM estimate is even lower, and his comparable earnings test is no more than a P/E ratio that has been misapplied as a cost of equity test.

351. The FBCU submit that, based on the totality of the evidence, the Fair Return Standard is met for the benchmark FEI with an ROE of 10.5%, based on the present 40% common equity ratio. The Commission should revise the benchmark return accordingly.

ALL OF WHICH IS RESPECTFULLY SUBMITTED.

Dated: January 31, 2013 **[original signed by Matthew Ghikas]**
Matthew Ghikas
Counsel for the FortisBC Utilities

Dated: January 31, 2013 **[original signed by Tariq Ahmed]**
Tariq Ahmed
Counsel for the FortisBC Utilities

BRITISH COLUMBIA UTILITIES COMMISSION
IN THE MATTER OF THE UTILITIES COMMISSION ACT (the “Act”)
R.S.B.C. 1996, Chapter 473

and

**British Columbia Utilities Commission
2012 Generic Cost of Capital Proceeding**

Book of Authorities

**for the
Final Submission of the
FortisBC Utilities (“FBCU”)**

January 31, 2013

FBCU Book of AUTHORITIES

1. *Northwestern Utilities Ltd. v. Edmonton (City)*, [1929] S.C.R. 186
2. *Bluefield Water Works & Improvement Co. v. Public Service Commission of West Virginia*, (262 U.S. 679, 692 (1923))
3. *Federal Power Commission v. Hope Natural Gas Company*, (320 U.S. 591 (1944))
4. *TransCanada PipeLines Ltd. v National Energy Board*, 2004 FCA 149
5. *British Columbia Electric Railway Co. v. Public Utilities Commission*, [1960] S.C.R. 837

Indexed as:

Northwestern Utilities Ltd. v. Edmonton (City)

**Northwestern Utilities, Limited, Appellant; and
The City of Edmonton and Board of Public Utility Commissioners
of Alberta, Respondents.**
**The City Of Edmonton, Appellant; and
Northwestern Utilities, Limited, and Board Of Public Utility
Commissioners of Alberta, Respondents.**

[1929] S.C.R. 186

Supreme Court of Canada

1928: October 24 / 1929: February 5.

**Present: Anglin C.J.C. and Mignault, Rinfret, Lamont and
Smith JJ.**

ON APPEAL FROM THE APPELLATE DIVISION OF THE SUPREME COURT OF ALBERTA

Public utilities -- Public Utilities Act, Alta. -- Hearings and investigations by Board of Public Utility Commissioners -- Powers of Board -- Obtaining of evidence -- Absence of evidence -- Order of Board fixing rates for gas supply in municipality by franchise holder -- Return on investment -- Inclusion in "rate base" of discount on sale of bonds -- Appeal from Board's order -- "Question of law."

The Board of Public Utility Commissioners of Alberta made an order in 1922 fixing rates chargeable for gas proposed to be supplied in the city of Edmonton by the predecessor of the appellant company. The Board fixed the rates on the basis of an allowance of 10% as a fair return on the investment in the enterprise, and in determining the "rate base" (the amount to be considered as invested in the enterprise) it included as a capital expenditure a sum which was the discount on the sale of the company's bonds. The rates were to continue in force for three years from the date on which gas was first supplied. In 1926 the appellant company applied for continuation of the rates. On this application the city objected to such a high rate of return and to the inclusion in the rate base of the item for bond discount. The Board continued said item in the rate base, but reduced the return to 9% "in view of the elements which go to make up the rate base, and in view of the altered conditions of the money market." The parties appealed (by leave) to the Appellate Division, Alta., and then to this Court, the company against the reduction of the rate of return, and the city against the

inclusion of the bond discount item in the rate base. The company contended that no evidence was adduced before the Board of "altered conditions of the money market," and that, without hearing evidence upon the point and giving the company opportunity to establish that the conditions of the money market had remained unaltered since 1922, the Board acted without jurisdiction in making the reduction. Under s. 47 of The Public Utilities Act, 1923, Alta., c. 53, as amended 1927, c. 39, an appeal lies from the Board upon a question "of jurisdiction" or "of law," upon leave obtained.

Held 1. The company's last mentioned contention involved a "question of law," and therefore it had a right to appeal.

2. The city's appeal failed; the question raised thereon was not one of jurisdiction or law.

3. The company's appeal failed. The Board had power to reduce the rate of return, notwithstanding that at the hearing before it no witnesses testified as to altered conditions of the money market. The company's contention that to alter the rate of return would be unfair to its shareholders who had invested in the enterprise after the order fixing the rates in 1922, was not a matter open for consideration upon the appeal, as it did not involve a question of jurisdiction or law.

Per Rinfret and Lamont JJ.: A consideration of ss. 21(4) (5), 25, 43, and 44 of the said Act, the purposes of the Act, and the extent of the powers vested in the Board, leads to the conclusion that the intention of the legislature was to leave it largely to the Board's discretion to say in what manner it should obtain the information required for the proper exercise of its functions; it was not to be bound by the technical rules of legal evidence, but was to be governed by such rules as, in its discretion, it thought fit to adopt. An inference that it had not the proper evidence before it as to the altered conditions of the money market could not be drawn from the fact that no oral testimony in respect thereof was given at the hearing. The company had notice that a reduction was sought and that the city was attacking the methods and principles adopted in fixing the rate of return informed the company that it would have to establish to the Board's satisfaction every element and condition necessary to justify a continuation of the 10% rate; and there was nothing in the record to justify the conclusion that the company had not the opportunity of making proof at the hearing as to the conditions of the money market.

Per Smith J.: The Board has power to reduce the rate of return without evidence; the question of a fair rate of return is largely one of opinion, hardly capable of being reduced to certainty by evidence, and appears to be one of the things entrusted by the statute to the judgment of the Board.

APPEALS by Northwestern Utilities, Limited, and the City of Edmonton, respectively, from the dismissal by the Appellate Division of the Supreme Court of Alberta of their respective appeals from the award of the Board of Public Utility Commissioners for the Province of Alberta fixing rates to be paid by consumers of natural gas, for the supply of which within the city of Edmonton the said company, Northwestern Utilities, Limited, has a franchise.

The company applied to the Board for an order continuing the rates which had been fixed for a certain period by an order of the Board made in 1922. The Board made an award fixing the rates, from which each party appealed to the Appellate Division. Under s. 47 of The Public Utilities Act of Alberta, 1923, c. 53, as amended 1927, c. 39, an appeal lies from the Board to the Appellate Division "upon a question of jurisdiction or upon a question of law," if leave to appeal is obtained as therein provided. Such leave to appeal was obtained, it being reserved to each party to move before the Appellate Division to set aside the order granting leave to the other party, on the ground that the matters as to which leave to appeal was given did not involve any question of law or jurisdiction.

The company's objection to the Board's award was that it fixed the rates on the basis of an allowance of only 9%, instead of 10% which was allowed under the order made in 1922, as the "rate of return" on the investment in the enterprise. The Board in its award said:--

In view of the elements which go to make up the rate base, and in view of the altered conditions of the money market, the Board believes it is justified in reducing the rate of return that the company shall be allowed, to nine per cent., and the Board's estimates are on that basis.

The company contended that there was before the Board no evidence of any "altered conditions of the money market," that the "elements which go to make up the rate base" were the same as in 1922, and afforded no reason for changing the rate of return, that to reduce the rate of return would be unfair to its shareholders, who had invested in the enterprise after the order fixing the rates in 1922, that the money was invested and the plant constructed on the strength of the principles laid down in 1922 award, and that it was clearly understood that the principles then adopted would govern all future revisions.

The city's objection to the award was that, in determining the "rate base" (the amount to be considered as invested in the enterprise) it included (as it had done in the 1922 award) as a capital expenditure a sum which was the discount on the sale of the company's bonds.

The Appellate Division dismissed both appeals (no written reasons being given). Subsequently it made separate orders giving each party leave to appeal to the Supreme Court of Canada. On an application by both parties in the Supreme Court of Canada, the appeals were consolidated.

By the judgment of this Court both appeals were dismissed with costs.

E. Lafleur K.C. and H.R. Milner K.C., for Northwestern Utilities, Limited.

O.M. Biggar K.C., for the City of Edmonton.

Solicitors for Northwestern Utilities, Limited: Milner, Carr, Dafoe & Poirier.

Solicitor for the City of Edmonton: John C.F. Brown.

The judgment of Anglin C.J.C. and Mignault J., was delivered by

ANGLIN C.J.C.:-- While, with my brother Smith, I incline to the view that the appellant company may have some reason to complain of unfairness in the judgment of the Board of Public Utility Commissioners reducing the rate of return from 10% to 9%, I agree with the conclusion reached by my brother Lamont and concurred in by my brother Smith that it is not open to us to entertain the appeal of the company on that ground. It does not seem to raise either a question of law or jurisdiction within the purview of the statute on which the right of appeal rests. I would dismiss the appeal.

The judgment of Rinfret and Lamont JJ. was delivered by

LAMONT J.:-- These are separate but consolidated appeals by the Northwestern Utilities, Limited (hereinafter called the Company) and the City of Edmonton, respectively, from the dismissal by the Appellate Division of the Supreme Court of Alberta of their respective appeals against the award made by the Board of Public Utility Commissioners on an application by the company for an

order fixing the price to be paid by the consumers of natural gas within the city. Subsequent to the dismissal of the appeals, the Appellate Division made separate orders giving each party leave to appeal to this Court. By a further order the appeals were consolidated.

The company is the successor of the Northern Alberta Natural Gas Development company, which held a franchise from the city for the supply of natural gas to the inhabitants thereof.

Disputes having arisen between the Development Company and the city, and an action having been commenced, the parties, on August 28, 1922, agreed to a settlement of their difficulties. One of the terms of the settlement was that the prices or rates to be paid by the inhabitants of the city should be fixed by the Board of Public Utility Commissioners. An application was accordingly made to the Board, the parties were heard, and, on November 27, 1922, an order was made fixing the rates to be paid. These rates were to continue in force for three years from the date on which gas was first supplied to consumers.

In order to fix just and reasonable rates, which it was the duty of the Board to fix, the Board had to consider certain elements which must always be taken into account in fixing a rate which is fair and reasonable to the consumer and to the company. One of these is the rate base, by which is meant the amount which the Board considers the owner of the utility has invested in the enterprise and on which he is entitled to a fair return. Another is the percentage to be allowed as a fair return.

In the award of 1922, which came into operation in the fall of 1923, the Board included in the rate base as a capital expenditure the sum of \$283,900 (10% of the cost of plant) as, "an allowance for the promotion and financing" of the company, and the sum of \$650,000 which was the discount on the sale of the Development Company's bonds. It also determined that 10% was a fair return on the investment. The rates thus fixed by the Board, with certain alterations made with the consent of all parties, continued in force for three years. In October, 1926, the appellant company, which had succeeded to the rights of the Development Company, applied to the Board for an order continuing the rates for such period as the Board might see fit. In its reply to the application the city submitted (par. 23) that the order of November, 1922, should in certain respects be disregarded. One of these was the following:--

(e) Rate of Return. It is submitted that the methods and principles adopted in the fixing of the rate of return are erroneous and that the rate of return allowed is too high.

The city also protested against including in the rate base the item for the promotion and financing of the company and the item for bond discount.

In its answer to the city's reply the company alleged (par. 10) that at the hearing in 1922 the city was fully and adequately represented, that it had submitted evidence, that upon the award being delivered it raised no objection to any part thereof, and, therefore, was now estopped from contending that the principles then laid down were wrong in principle or in fact.

In its award the Board continued both the above mentioned sums in the rate base, but reduced the rate of return to the company from 10% to 9%. The reason assigned by the Board for this reduction is as follows:--

In view of the elements which go to make up the rate base, and in view of the altered conditions of the money market, the Board believes it is justified in reducing the rate of return that the Company shall be allowed, to nine per cent., and the Board's estimates are on that basis.

From the award the parties appealed, first to the Appellate Division of the Supreme Court of Alberta, and now to this Court. The company appealed against the reduction of the rate of return on its capital expenditure to 9%. Referring to the reasons given by the Board for making the reduction the company in its factum says:--

1. The city adduced no evidence as to "altered conditions of the money market" and
2. "The elements which go to make up the rate base" in 1927 are the same as in 1922.

The city appealed against the inclusion in the rate base of the item of the bond discount above mentioned.

The Public Utilities Act allows an appeal from the Board only upon a question of jurisdiction, or upon a question of law, and even then only when leave to appeal has first been obtained from a judge of the Appellate Division.

As against the company's appeal the city raises the preliminary objection that no question either of jurisdiction or law is involved therein. In my opinion the objection cannot be sustained. The substance of the company's appeal is that the Board in making a reduction in the rate of return did so for two reasons, one of which was the "altered conditions of the money market," and that of this no evidence was adduced before the Board. The company contends that, without hearing evidence upon the point, and without giving it an opportunity to establish that the conditions of the money market had remained unaltered since 1922, the Board was without jurisdiction to make the reduction. This contention was not stated in this form in the order granting leave to appeal to the Appellate Division, but the fixing of the rate of return at 9% only, was there set out as an error of the Board in respect of which leave to appeal was granted.

Whether or not the Board can properly base an order (in part at least) on the existence of a state of fact of which no evidence was adduced before it at the hearing and as to which the party affected has not had any opportunity of being heard is, in my opinion, a question of law which depends for its answer upon the construction to be placed upon the Public Utilities Act.

I am, therefore, of opinion that the company had a right to appeal.

The question involved in this appeal is: Had the Board jurisdiction to find as a fact how the conditions of the money market had altered between November, 1922, and July, 1927, without any witness testifying at the hearing than an alteration had taken place.

As the Board was determining what would be a fair return on the capital invested by the company in the enterprise, and as it reduced the return from 10% to 9%, it can, I think, be taken that by "the altered conditions of the money market" the Board meant that the returns for money invested had decreased during the period in question. In other words, that the rate of interest obtainable

for moneys furnished for investment was, generally speaking, lower by a certain percentage in 1927 than it was in 1922. That, in my opinion, is all that is involved in the finding.

The duty of the Board was to fix fair and reasonable rates; rates which, under the circumstances, would be fair to the consumer on the one hand, and which, on the other hand, would secure to the company a fair return for the capital invested. By a fair return is meant that the company will be allowed as large a return on the capital invested in its enterprise (which will be net to the company) as it would receive if it were investing the same amount in other securities possessing an attractiveness, stability and certainty equal to that of the company's enterprise. In fixing this net return the Board should take into consideration the rate of interest which the company is obliged to pay upon its bonds as a result of having to sell them at a time when the rate of interest payable thereon exceeded that payable on bonds issued at the time of the hearing. To properly fix a fair return the Board must necessarily be informed of the rate of return which money would yield in other fields of investments. Having gone into the matter fully in 1922, and having fixed 10% as a fair return under the conditions then existing, all the Board needed to know, in order to fix a proper return in 1927, was whether or not the conditions of the money market had altered, and, if so, in what direction, and to what extent.

For the city it was argued that, as one of the statutory powers of the Board was to deal with the financial affairs of local authorities (s. 20(d)), and as this included the power to authorize the issue of new debentures by these authorities and to determine the rate of interest to be paid thereon and also the power to order a variation of the rate of interest payable upon any debt of the local authority (s. 103), the Board must necessarily be familiar with the rate of interest prevailing from time to time and therefore did not require to have witnesses called to furnish it with information which in the regular performance of its duty it was obliged to possess. In view of the powers and duties of the Board under the Act there is, in my opinion, considerable to be said for the city's contention. It is not necessary, however, to determine this question, for in the statute itself I find sufficient to justify the conclusion that the intention of the Legislature was to leave it largely to the discretion of the Board to say in what manner it should obtain the information required for the proper exercise of its functions.

The material provisions of the Act on this point are as follows:--

21. (4) The Board may in its discretion accept and act upon evidence by affidavit or written affirmation or by the report of any officer or engineer appointed by it or obtained in such other manner as it may decide.

(5) All hearings and investigations before the Board shall be governed by rules adopted by the Board, and in the conduct thereof the Board shall not be bound by the technical rules of legal evidence.

Section 25 provides that upon a complaint being made to the Board that any proprietor of a public utility has unlawfully done or unlawfully failed to do something relating to a matter over which the Board has jurisdiction, the Board shall "after hearing such evidence as it may think fit to require" make such order as it thinks fit under the circumstances. Section 43 provides that the Board may "appoint or direct any person to make an inquiry and report upon any application ... before the Board." And by section 44 the Board may "review, rescind, change, alter or vary any decision or

order made by it." A perusal of these statutory provisions and a consideration of the purposes of the Act and the extent of the powers vested in the Board leads me to the conclusion that the Legislature intended to create a Board which in the exercise of its functions should not be bound by the technical rules of legal evidence but which would be governed by such rules as, in its discretion, it thought fit to adopt (s. 21(5)). We have not been made acquainted with the rules, if any, adopted by the Board to govern its investigations. Nor do we know what information it possessed as to the altered conditions of the money market; but, as it had authority to act on evidence "obtained in such manner as it may decide" (s. 21(4)), an inference that it had not the proper evidence before it cannot be drawn from the fact that no oral testimony in respect thereof was given at the hearing. If, in this case, the Board had asked its secretary to inquire from the various financial institutions in Edmonton if there had been any alteration in the conditions of the money market between 1922 and 1927, and the secretary had reported that there had been a certain decrease in the returns from invested capital, would it have been necessary to call witnesses to verify the report? In my opinion it would not. Nor would it have been necessary to afford to either party an opportunity to controvert before the Board the information so obtained. Then would it have been necessary to mention in the award that the fact that such altered conditions had been established to the satisfaction of the Board by a report of its secretary? I can find nothing in the Act requiring mention to be made of the evidence or of the manner of obtaining it.

Reference was made to s. 86, which provides that no order involving any outlay, loss or depreciation to the proprietor of any public utility or to any municipality or person shall be made without due notice and full opportunity to all parties concerned to make proof to be heard at a public sitting of the Board, except in the case of urgency. A reduction in the rate of return to the company would, in my opinion, come within this section. The Board was, therefore, without jurisdiction to make the reduction unless the company had notice that a reduction was sought and had an opportunity of proving that under the circumstances existing at the time of the hearing the existing rate of return was fair and reasonable. That the company had notice that the city was demanding a reduction is beyond question (par. 23(e)). It had more. It had notice that the city was attacking the methods and principles adopted in fixing the rate of return in 1922. This, in my opinion, put the whole question of a fair return at large and informed the company that it would have to establish to the Board every element and condition necessary to justify a continuation of the 10% rate. The company does not say that it was refused an opportunity of putting in evidence as to the conditions of the money market. Nowhere does it deny that it could have put in evidence had it so desired. What it does say is that the city did not adduce evidence on the point and that no witnesses were called to testify before the Board in regard thereto. There is nothing before us to justify an inference that the company was not at liberty to call witnesses as to the conditions of the money market had it so desired. Moreover, in the order which the company obtained giving it leave to appeal it did not even suggest that it had no opportunity of submitting evidence as to the existing market conditions. The ground upon which the company relied to meet the city's demand for a reduction, as set out in the answer which it filed, was that as the city had accepted the award when it was delivered and had raised no objection thereto, it was now precluded from seeking to set aside the principles upon which the rate of return was based. In its factum it went further and contended that, even if there was no estoppel, the principles then adopted should now be adhered to because it was on the strength of their having been adopted that the shareholders of the company invested their money in the enterprise. This involves neither a question of jurisdiction nor of law. In the second place, it is the duty of the Board to fix rates which, in its opinion, will be fair and reasonable at the time the order is made and for the period for which they are fixed. If any wrong principle or erroneous view

has been adopted it is the duty of the Board at the next revision to correct the error. The argument that it would be unfair to the shareholders now to alter the rate of return is not a matter open for consideration on appeal. Moreover, when these shareholders invested their money they knew that the rates fixed were to be in force for three years only and that it would be the duty of the Board on the next revision to fix rates which at that time would be fair and reasonable under the circumstances then existing.

Our attention was also called to s. 4(1a) as indicating an intention that evidence must be taken on all material points. That subsection reads as follows:--

(1a) On the hearing of any appeal referred to in subsection 1 of this section no evidence other than the evidence which was submitted to the Board upon the making of the order appealed from shall be admitted, and the Court shall proceed either to confirm or vacate the order appealed from, and in the latter event refer the matter back to the Board for further consideration and redetermination.

In my opinion this subsection means no more than that no new evidence is to be admitted on appeal.

The appeal of the company should therefore be dismissed with costs.

The appeal of the city should likewise be dismissed with costs. The items which should be included in the rate base cannot, in my opinion, be considered a question of jurisdiction or of law.

SMITH J.:-- The City of Edmonton had made an agreement with the Northern Alberta Natural Gas Development Company, by which the company obtained a franchise to supply natural gas to the city, and agreed to construct the necessary works. The company failed to construct the works, and the city sued for damages for breach of contract. The actions were settled by an agreement dated 22nd August, 1922 under which the determination of the rates to be charged by the company for gas was referred to the Board of Public Utility Commissioners, and the company was, within six months after the fixing of the rates, to deposit \$50,000 with the city, which was to be forfeited to the city as liquidated damages in case the company did not complete the construction of the works as agreed.

A rate hearing was held by the Board after this settlement, at which the company and the city was represented, and the Board made an award, setting out a rate basis and fixing prices for gas on this basis.

The difficulty about proceeding with the works had been the procuring of capital on the basis of prices provided in the original agreement and amendments made. The whole object of fixing a rate base and prices in advance of construction was to facilitate financing by the company. It would necessarily be on the basis of the award that investors would buy bonds and stock of the company. The company had the option of proceeding with the works or abandoning them and forfeiting the \$50,000, after seeing the award. In July following the making of the award, the company assigned its franchise and property to the appellant, the Northwestern Utilities, Limited, which, by sale of its bonds and stock, raised the necessary capital, constructed the works, and put them in operation. The rate to be charged for gas was fixed by the award for three years, and at the end of this period the company applied to the Board for continuation of the rates fixed by the award. The rate base fixed by the Board in the award of 1922 contained many items, such as total investment, operating cost,

depletion reserve, reserve for repayment of cost of plant, total necessary revenue, amounts of gas to be sold, and the rate of return on capital to be allowed. It is evident that, with the exception of the last of these items, the amounts fixed must have been estimates, liable to be varied by actual results.

The rate of return to be allowed on capital was fixed in the award at 10% not based on the ordinary rate of money on the market at the time or on an estimated future rate, but on consideration of the rate that would induce investors to risk their capital in an extremely hazardous and doubtful venture. At the hearing before the Board in 1922, the company had asked a 12% rate of return on capital, and the city had conceded 10%, which the Board fixed, though it stated that under the circumstances a return of more than 10% would not seem to be unjust. The reason set out for not fixing this higher rate was that it might so restrict the market that the higher rate would not compensate for the restriction of the market, and would therefore not be to the advantage of the company. It is, however, stated that in case of future revision, it may be found desirable, under certain circumstances, to increase this rate.

On the revision at the end of three years, this rate was not increased, but was reduced from 10% to 9%, at the instance of the city, and this reduction constitutes the ground of appeal.

In the reasons given by the Board in fixing the new rates, it is pointed out that, where rates have been fixed in advance of construction and financing, the Board is not precluded from subsequently making changes that may appear from subsequent reconsideration to be necessary, and it is then stated that

those investing in such a case must depend on the fairness of the Board in seeing that the Company is allowed a fair and reasonable return upon its investment, but the Board may, and indeed it should, take into consideration the circumstances under which such investment was made.

In discussing these circumstances in reference to a request by the city for elimination from the rate base of the 1922 award of the item for bond discount the Board says:

There is, moreover, an additional factor to be considered in the present case and that is, that in 1922 the inclusion of the allowance for bond discount was practically agreed to by the city in its case and the item was not questioned by the city until at the recent hearing. It is only fair to assume that the fact of the inclusion of the bond discount in the rate base formed part of the inducement for the making of the investment. Under the circumstances, therefore, the Board does not feel justified in adopting the City's contention in this regard.

This lays down a principle with which one heartily agrees, and which applies exactly to the city's application for reduction of the rate of return on capital fixed in the award of 1922 at 10%. The Board fixed this rate with the assent of the city, and this rate, coupled with the suggestion by the Board that it might be increased, "formed part of the inducement for the making of the investment."

The altered condition of the money market, given as a reason for the reduction of the rate to 9%, seems to me to have no bearing on the matter. The representation to the investor in 1922 was, for the risk you take in placing your capital in a hazardous undertaking, you will be allowed as a basis in fixing rates to be charged for gas a return of 10%. What the regular money market might be three years later could have nothing to do with the decision to invest. The whole question was,

viewing the risk, and the chances, as matters then stood, was the chance of 10% on the money worth the risk of a bad investment, with the possibility of the loss of all or part of the capital?

The Board then, in my opinion, laid down a proper principle, and applied it in other instances, but failed to apply it to its item, as to which I think it was particularly applicable. The question is, can this Court set aside the finding of the Board as to this item on the appeal? I agree with my brother Lamont that, whether or not under the Act the Board was entitled to reduce the rate to 9% without evidence, because of a change in money market conditions, is a question of law, and that there is therefore a right of appeal, and it is with some regret that I feel bound to agree with him that the Board had jurisdiction to make the change in rate without evidence, and without giving the company an opportunity to offer evidence. The question of a fair rate of return on a risky investment is largely a matter of opinion, and is hardly capable of being reduced to certainty by evidence, and appears to be one of the things entrusted by the statute to the judgment of the Board.

I am not entirely in accord with the observations of my brother Lamont in reference to the sending out of someone to gather evidence of the state of the money market and acting on that party's report without the knowledge of the company. The objection in such a case would not be the failure to set out in the award the fact of such evidence and its nature, but the failure to disclose it to the company with an opportunity to answer it. If it were a case where, evidence being necessary, it had been taken in the manner suggested, or otherwise, and a finding based on it without disclosure of it to the company and an opportunity to answer it, I would regard such a proceeding as contrary to elementary principles of justice, and as affording, under the statute, a ground for setting the award as to this item aside and referring it back for reconsideration. It does not, however, appear that any evidence was taken, and as stated, I have concluded that there was power to make the change without evidence.

I therefore concur with my brother Lamont in the disposal of this appeal.

Appeals dismissed with costs.

BLUEFIELD WATER WORKS & IMPROVEMENT COMPANY v. PUBLIC SERVICE COMMISSION OF THE STATE OF WEST VIRGINIA ET AL.

No. 256.

SUPREME COURT OF THE UNITED STATES

262 U.S. 679; 43 S. Ct. 675; 67 L. Ed. 1176; 1923 U.S. LEXIS 2676

**Argued January 22, 1923.
June 11, 1923, Decided**

PRIOR HISTORY: ERROR TO THE SUPREME COURT OF APPEALS OF THE STATE OF WEST VIRGINIA.

ERROR to a judgment of the Supreme Court of Appeals of West Virginia, sustaining an order of a state commission fixing water rates, in a suit brought by the plaintiff in error to set the order aside.

CASE SUMMARY:

PROCEDURAL POSTURE: Plaintiff public utility company appealed from an order of the Supreme Court of Appeals of the State of West Virginia, which upheld rates that were fixed by defendant state public service commission pursuant to defendant's statutory authority to fix just and reasonable rates.

OVERVIEW: Plaintiff public utility company furnished water to a city and its inhabitants. Defendant state public service commission, authorized by statute to fix just and reasonable rates, made its order prescribing rates. Pursuant to W. Va. Code § 16, plaintiff instituted proceedings to suspend and set aside the order. Plaintiff alleged that the order was repugnant to the U.S. Const. amend. XIV and deprived it of its property without just compensation and without due process of the law, and denied it equal protection. A final order was entered by the state supreme court of appeals which denied plaintiff relief and dismissed the petition. Plaintiff brought the case before the Court on a writ of error. Upon review the Court reversed the order. The Court held that it was erroneous for defendant not to accord proper, if any, weight to the enhanced costs of construction as of the time when the inquiry was made regarding the rates which resulted in a valuation that was considerably and materially less than what would have been reached by a fair and just consideration of all of the facts, and which was insufficient to yield plaintiff a reasonable return on the value of its property.

OUTCOME: The Court reversed the order which upheld the rates that were fixed by defendant state public service commission because defendant's failure to accord proper weight to the enhanced costs of construction as of the time when the inquiry was made resulted in a valuation of plaintiff public utility company's property that was considerably and materially less than what would have been reached by a fair and just consideration of all of the facts.

CORE TERMS: depreciation, engineer, confiscatory, valuation, plant, estimate, public utility, rate of return, reproduction, fair value, working capital, writ of error, fair return, prescribing, prevailing, invested, greatly, state commission, public service, reasonable return, higher rates, convenience, disregarded, prescribed, estimated, arriving, deprives, safe, constitutional right, deducting

LexisNexis(R) Headnotes

Constitutional Law > Substantive Due Process > Scope of Protection

262 U.S. 679, *; 43 S. Ct. 675, **;
67 L. Ed. 1176, ***; 1923 U.S. LEXIS 2676

Energy & Utilities Law > Utility Companies > Rates > General Overview

[HN1] Rates which are not sufficient to yield a reasonable return on the value of the property used at the time it is being used to render the service are unjust, unreasonable and confiscatory, and their enforcement deprives the public utility company of its property in violation of the U.S. Const. amend. XIV.

Energy & Utilities Law > Utility Companies > Rates > General Overview

[HN2] The value of the property is to be determined as of the time when the inquiry is made regarding the rates. If the property, which legally enters into the consideration of the question of rates, increases in value since it is acquired, the company is entitled to the benefit of such increase.

Energy & Utilities Law > Utility Companies > Rates > General Overview

[HN3] What annual rate will constitute just compensation depends upon many circumstances and must be determined by the exercise of a fair and enlightened judgment, having regard to all relevant facts.

Energy & Utilities Law > Utility Companies > Rates > General Overview

[HN4] A public utility is entitled to such rates as will permit it to earn a return on the value of the property which it employs for the convenience of the public equal to that generally being made at the same time and in the same general part of the country on investments in other business undertakings which are attended by corresponding risks and uncertainties; but it has no constitutional right to profits such as are realized or anticipated in highly profitable enterprises or speculative ventures.

Energy & Utilities Law > Utility Companies > Rates > Ratemaking Factors > Rate of Return

[HN5] The return should be reasonably sufficient to assure confidence in the financial soundness of the utility and should be adequate, under efficient and economical management, to maintain and support its credit and enable it to raise the money necessary for the proper discharge of its public duties. A rate of return may be reasonable at one time and become too high or too low by changes affecting opportunities for investment, the money market and business conditions generally.

Energy & Utilities Law > Utility Companies > Rates > General Overview

[HN6] The question whether a rate yields such a return as not to be confiscatory depends upon circumstances, locality and risk, and no proper rate can be established for all cases.

LAWYERS' EDITION HEADNOTES:

Appeal -- Federal question -- Supreme Court of the United States. --

Headnote:

Questioning the validity of an order prescribing rates for a public utility, made under legislative authority, on the ground of repugnance to the Federal Constitution, raises a Federal question subject to review by the Supreme Court of the United States.

[For other cases, see Appeal and Error, 1645-1716, in Digest Sup. Ct. 1908.]

Public utilities -- rates -- consideration of present reproduction cost. --

Headnote:

Reproduction cost at present prices cannot be ignored in fixing rates for a public utility established before the war.

Constitutional law -- due process -- judgment of court on facts. --

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Headnote:

A public utility is, under the due process clause of the Federal Constitution, entitled to the independent judgment of the court as to both law and facts upon review of rates fixed by a public service commission.

[For other cases, see Constitutional Law, IV. b, 8, c, in Digest Sup. Ct. 1908.]

Constitutional law -- rates -- what are confiscatory. --

Headnote:

Rates which are not sufficient to yield a reasonable return upon the value of the property used at the time it is being used to render public service are unjust, unreasonable, and confiscatory, and their enforcement deprives the public utility company of its property, in violation of the Federal Constitution.

[For other cases, see Constitutional Law, IV. b, 7. c, in Digest Sup. Ct. 1908.]

Public utilities -- rates -- to what is public utility entitled. --

Headnote:

A public utility is entitled to such rates as will permit it to earn a return upon the value of the property which it employs for the convenience of the public equal to that generally being made at the same time and in the same general part of the country on investments in other business undertakings which are attended by corresponding risks and uncertainties, but it has no constitutional right to profits such as are realized or anticipated in highly profitable enterprises or speculative ventures.

Public utilities -- right to return to which entitled. --

Headnote:

The return on investment which a public utility should be permitted to earn should be reasonably sufficient to assure confidence in the financial soundness of the utility, and should be adequate, under efficient and economical management, to maintain and support its credit, and enable it to raise money necessary for the proper discharge of its public duties.

Water -- rates -- allowance too low. --

Headnote:

Six per cent is too low to constitute just compensation for supplying a city with water where, for many years, the income was less than 5 per cent, and, for part of the time, approximated 3 per cent after an allowance for depreciation.

SYLLABUS

1. A judgment of the highest court of a State which upholds an order of a state commission fixing the rates of a public utility company over the objection that the rates are confiscatory and the order hence violative of the Fourteenth Amendment, is reviewable here, on the constitutional question, by writ of error. P. 683.
2. In estimating the value of the property of a public utility corporation, as a basis for rate regulation, evidence of present reproduction costs, less depreciation, must be given consideration. P. 689. Southwestern Bell Telephone Co. v. Public Service Commission, ante, 276.

262 U.S. 679, *; 43 S. Ct. 675, **;
67 L. Ed. 1176, ***; 1923 U.S. LEXIS 2676

3. A public utility corporation, challenging as confiscatory rates imposed by a state commission, is entitled, under the due process clause of the Fourteenth Amendment, to the independent judgment of the court as to both law and facts. *Id.*
4. Rates which are not sufficient to yield a reasonable return on the value of the property used, at the time it is being used to render the service of the utility to the public, are unjust, unreasonable and confiscatory; and their enforcement deprives the public utility company of its property, in violation of the Fourteenth Amendment. *P. 690.*
5. A public utility is entitled to such rates as will permit it to earn a return on the value of the property it employs for the convenience of the public equal to that generally being made at the same time, and in the same region of the country, on investments in other business undertakings which are attended by corresponding risks and uncertainties; but it has no constitutional right to profits such as are realized or anticipated in highly profitable enterprises or speculative ventures. *P. 692.*
6. The return should be reasonably sufficient to assure confidence in the financial soundness of the utility, and should be adequate, under efficient and economical management, to maintain its credit, and enable it to raise the money necessary for the proper discharge of its public duties. *Id.*
7. A rate of return may be reasonable at one time, and become too high or too low by changes affecting opportunities for investment, the money market, and business conditions generally. *Id.*
8. In this case, 6% was inadequate to constitute just compensation. *P. 695.*

89 W. Va. 736, reversed.

COUNSEL: Mr. Alfred G. Fox, with whom Mr. Joseph M. Sanders was on the briefs, for plaintiff in error.

Mr. Russell S. Ritz for defendants in error.

The judgment of the Supreme Court of Appeals of West Virginia herein does not declare valid any statute of the State or any authority exercised under the State, which is repugnant to the Constitution, treaties, or laws of the United States.

The most that can be claimed is that the Commission, acting under lawful authority in reaching the conclusion from a disputed state of facts, found and fixed the value of plaintiff's property for rate making purposes at an amount less than some other tribunal may have fixed and determined from a like state of facts. A judgment based upon such a state of facts does not raise such a federal question as gives a right of review from this Court to the highest court of the State by a writ of error. The Public Service Commission and the Supreme Court of Appeals acted under valid state authority. The authority or law under which these respective tribunals exercised jurisdiction not being repugnant to any federal law, what conclusions they may have reached from a given state of facts which furnishes the basis for the judgment complained of herein, does not present a question subject to be reviewed by writ of error. Such questions can be reviewed only on petition for a writ of certiorari. *Zucht v. King*, 260 U.S. 174; *Stadelman v. Miner*, 246 U.S. 544; *Philadelphia & Reading Coal Co. v. Gilbert*, 245 U.S. 162; *Ireland v. Woods*, 246 U.S. 323.

It is not here contended that a public utility is not entitled to a fair return upon the fair and reasonable value of all of its plant and property then used and useful in the public service, but we submit that the fair and reasonable value of a public utility's plant and property is not to be ascertained by adopting only one method of valuation to the exclusion of all other known methods and elements of value. A valuation of a public utility, such as would be fair to the public as well as the utility, should take into consideration the original cost or investment in the utility; the market value of its stocks or bonds, if any; the probable earning capacity of the property; the various rates it has received and the rate it is receiving; the amounts necessary to meet operating expenses; the ability of the utility to adequately perform the public service; the history of the operations of the utility; and perhaps other elements; and after taking all of these into consideration, fix a value that will be fair both to the public and to the utility. *Smyth v. Ames*, 169 U.S. 466; *San Diego*

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Land & Town Co. v. Jasper, 189 U.S. 439; San Diego Land & Town Co. v. National City, 174 U.S. 739; Knoxville v. Knoxville Water Co., 212 U.S. 1; Des Moines Gas Co. v. Des Moines, 238 U.S. 153; Willcox v. Consolidated Gas Co., 212 U.S. 19.

If by taking one element or method of value a conclusion is reached which is out of all proportion with a conclusion that may be reached by taking other methods, then that measure or method should be adopted which will, after taking into consideration all of the elements of value, make a fair and reasonable value on the utility's property, used and useful in the public service.

The reproduction theory of public utility valuation has been usually resorted to by the public to safeguard itself against values of public utilities, based upon inflated and watered stock investments, purporting to represent original cost. Practically all, if not all, of the decisions of this Court, in which this theory of valuation was even considered, were cases of this character; and even in them this Court has never held that the reproduction new theory at present prices was an exclusive method by which public utility values are to be determined. Smyth v. Ames, *supra*; Whitten, Valuation Public Service Corporations, c. V, p. 82, et seq.; 2 Wyman, Public Service Corporations, c. 32; Coal & Coke Ry. Co. v. Conley, 67 W. Va. 129; Minnesota Rate Cases, 230 U.S. 352.

If determining public utility values for rate-making purposes is to be accomplished by using the reproduction new theory at present prices, to the exclusion of every other element and method of values, then it may well be seen to what uncertain, as well as unfair, consequences it may lead. If the market is abnormally low and a valuation on this theory is made at such a time, without, taking into consideration past costs or other elements of value, it would be manifestly unfair to the utility. Likewise, if this theory of valuation is used at a time of abnormally high prices in the market, such as was produced by the World War, and all other methods and elements of values are excluded, then it would be most unfair to the public, who would be expected to pay rates of return upon such unfair value so reached. Potomac Electric Power Co. v. Public Utilities Comm., 276 Fed. 330; New York Pub. Serv. Comm. No. 5, P.U.R. 930; Newton v. Consolidated Gas Co., 258 U.S. 165.

OPINION BY: BUTLER

OPINION

[*683] [**675] [***1179] MR. JUSTICE BUTLER delivered the opinion of the Court.

Plaintiff in error is a corporation furnishing water to the city of Bluefield, West Virginia, [**676] and its inhabitants. September 27, 1920, the Public Service Commission of the State being authorized by statute to fix just and reasonable rates, made its order prescribing rates. In accordance with the laws of the State (§ 16, c. 15-0, Code of West Virginia) the company instituted proceedings in the Supreme Court of Appeals to suspend and set aside the order. The petition alleges that the order is repugnant to the Fourteenth Amendment, and deprives the company of its property without just compensation and without due process of law and denies it equal protection of the laws. A final judgment was entered denying the company relief and dismissing its petition. The case is here on writ of error.

1. The city moves to dismiss the writ of error for the reason, as it asserts, that there was not drawn in question the validity of a statute or an authority exercised under the State, on the ground of repugnancy to the Federal Constitution.

The validity of the order prescribing the rates was directly challenged on constitutional grounds, and it was held valid by the highest court of the State. The prescribing of rates is a legislative act. The commission is an instrumentality of the State, exercising delegated powers. Its order is of the same force as would be a like enactment by the legislature. If, as alleged, the prescribed rates are confiscatory, the order is void. Plaintiff in error is entitled to bring the case here on writ of error and to have that question decided by this Court. The motion to dismiss will be denied. See Oklahoma Natural Gas Co. v. [*684] Russell, 261 U.S. 290, and cases cited; also Ohio Valley Water Co. v. Ben Avon Borough, 253 U.S. 287.

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2. The commission fixed \$460,000 as the amount on which the company is entitled to a return. It found that under existing rates, assuming some increase of business, gross earnings for 1921 would be \$80,000 and operating expenses \$53,000, leaving \$27,000, the equivalent of 5.87 per cent., or 3.87 per cent. after deducting 2 per cent. allowed for depreciation. It held existing rates insufficient to the extent of \$10,000. Its order allowed the company to add 16 per cent. to all bills, excepting those for public and private fire protection. The total of the bills so to be increased amounted to \$64,000. That is, 80 per cent. of the revenue was authorized to be increased 16 per cent., equal to an increase of 12.8 per cent. on the total, -- amounting to \$10,240.

As to value. The company claims that the value of the property is greatly in excess of \$460,000. Reference to the evidence is necessary. There was submitted to the commission evidence of value which it summarized substantially as follows:

| | |
|---|----------------|
| a. Estimate by company's engineer on | |
| basis of reproduction new, less | |
| depreciation, at prewar prices | \$624,548.00 |
| b. Estimate by company's engineer on | |
| basis of reproduction new, less | |
| depreciation, at 1920 prices | \$1,194,663.00 |
| c. Testimony of company's engineer | |
| fixing present fair value for rate | |
| making purposes | \$900,000.00 |
| d. Estimate by commission's engineer on | |
| basis of reproduction new, less depre- | |
| ciation at 1915 prices, plus additions | |
| since December 31, 1915, at actual | |
| cost, excluding Bluefield Valley | |
| Water Works, water rights and | |
| going value | \$397,964.38 |
| e. Report of commission's statistician | |
| showing investment cost less | |
| depreciation | \$365,445.13 |
| f. Commission's valuation, as fixed in | |
| Case No. 368 (\$360,000) plus gross | |
| additions to capital since made | |
| (\$92,520.53) | \$452,520.53 |

[*685] It was shown that the prices prevailing in 1920 were nearly double those in 1915 and prewar time. The company did not claim value as high as its estimate of cost of construction in 1920. Its valuation engineer testified that in his opinion the value of the property was \$900,000, -- a figure between the cost of construction in 1920, less depreciation, and the cost of construction in 1915 and before the war, less depreciation.

The commission's application of the evidence may be stated briefly as follows:

As to "a", supra. The commission deducted [***1180] \$204,000 from the estimate (details printed in the margin),¹

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leaving approximately \$421,000 which it contrasted with the estimate of its own engineer, \$397,964.38 (see "d", supra). It found that there should be included \$25,000 for the Bluefield Valley Water Works plant in Virginia, 10 per cent. for going value, and \$10,000 for working capital. If these be added to \$421,000 there results \$500,600. This may be compared with the commission's final figure, \$460,000.

1

| | |
|---|-----------|
| Difference in depreciation allowed | \$49,000 |
| Preliminary organization and development cost | 14,500 |
| Bluefield Valley Water Works Plant | 25,000 |
| Water rights | 50,000 |
| Excess overhead costs | 39,000 |
| Paving over mains | 28,500 |
| [sic] | \$204,000 |

[*686] As to "b" and "c", supra. These were given no weight by the commission in arriving at its final figure, \$460,000. It said:

"Applicant's plant was originally constructed more than twenty years ago, and has been added to from time to time as the progress and development of the community required. For this reason, it would be unfair to its consumers to use as a basis for present fair value the abnormal prices prevailing during the recent war period, but when, as in this case, a part of the plant has been constructed or added to during that period, in fairness to the applicant, consideration must be given to the cost of such expenditures made to meet the demands of the public."

[**677] As to "d", supra. The commission taking \$400,000 (round figures) added \$25,000 for Bluefield Valley Water Works plant in Virginia, 10 per cent. for going value, and \$10,000 for working capital, making \$477,500. This may be compared with its final figure, \$460,000.

As to "e" supra. The commission on the report of its statistician found gross investment to be \$500,402.53. Its engineer applying the straight line method found 19 per cent. depreciation. It applied 81 per cent. to gross investment and added 10 per cent. for going value and \$10,000 for working capital, producing \$455,500.² This may be compared with its final figure, \$460,000.

2 As to "e". \$365,445.13 represents investment cost less depreciation. The gross investment was found to be \$500,402.53, indicating a deduction on account of depreciation of \$134,957.40, about 27 per cent. as against 19 per cent. found by the commission's engineer.

As to "f", supra. It is necessary briefly to explain how this figure, \$452,520.53, was arrived at. Case No. 368 was a proceeding initiated by the application of the company for higher rates, April 24, 1915. The commission made a valuation as of January 1, 1915. There was presented two estimates of reproduction cost less depreciation, one by a valuation engineer engaged by the company [*687] and the other by a valuation engineer engaged by the city, both "using the same method." An inventory made by the company's engineer was accepted as correct by the city and by the commission. The method "was that generally employed by courts and commissions in arriving at the value of public utility properties under this method", and in both estimates "five year average unit prices" were applied. The estimate of the company's engineer was \$540,000 and of the city's engineer, \$392,000. The principal differences as given by the commission are shown in the margin.³ The commission disregarded both estimates and arrived at \$360,000. It held that

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the best basis of valuation was the net investment, i.e., the total cost of the property less depreciation. It said: "The books of the company show a total gross investment since its organization, of \$407,882.00, and that there has been charged off for depreciation from year to year the total sum of \$83,445.00, leaving a net investment of \$324,427.00. . . . From an examination of the books . . . it appears that the records of the company have been remarkably well kept and preserved. It, therefore, seems that when a plant is developed under these conditions the net investment which of course means the total gross investment less depreciation is the very best basis of valuation for rate making purposes and that the other methods above referred to should [***688**] be used only when it is impossible to arrive at the true investment. Therefore, after making due allowance for capital [*****1181**] necessary for the conduct of the business and considering the plant as a going concern, it is the opinion of the commission that the fair value for the purpose of determining reasonable and just rates in this case of the property of the applicant company, used by it in the public service of supplying water to the City of Bluefield and its citizens, is the sum of \$360,000.00, which sum is hereby fixed and determined by the Commission to be the fair present value for the said purpose of determining the reasonable and just rates in this case."

3

| | Company engineer. | City engineer. |
|------------------------------------|----------------------|-------------------|
| 1. Preliminary cost | \$14,455 | \$1,000 |
| 2. Water rights | 50,000 | Nothing. |
| 3. Cutting pavements over mains | 27,744 | 233 |
| 4. Pipe lines from gravity springs | 22,072 | 15,442 |
| 5. Laying cast iron street mains | 19,252 | 15,212 |
| 6. Reproducing Ada Springs | 18,558 | 13,027 |
| 7. Superintendence and Engineering | 20,515 | 13,621 |
| 8. General contingent cost | 16,415 | 5,448 |
| | \$189,011 | \$63,983 |

In its report in No. 368, the commission did not indicate the amounts respectively allowed for going value or working capital. If 10 per cent. be added for the former, and \$10,000 for the latter (as fixed by the commission in the present case) there is produced \$366,870, to be compared with \$360,000, found by the commission in its valuation as of January 1, 1915. To this it added \$92,520.53 expended since, producing \$452,520.53. This may be compared with its final figure, \$460,000.

The State Supreme Court of Appeals holds that the valuing of the property of a public utility corporation and prescribing rates are purely legislative acts not subject to judicial review except in so far as may be necessary to determine whether such rates are void on constitutional or other grounds; and that findings of fact by the commission based on evidence to support them will not be reviewed by the court. *Bluefield v. Water Works Co.*, 81 W. Va. 201, 204; *Coal and Coke Co. v. Public Service Commission*, 84 W. Va. 662, 678; *Charleston v. Public Service Commission*, 86 W. Va. 536.

In this case (89 W. Va. 736) it said (p. 738):

"From the written opinion of the commission we find that it ascertained the value of the petitioner's property for rate making [then quoting the commission] 'after [***689**] maturely and carefully considering the various methods presented for the ascertainment of fair value and giving such weight as seems proper to every element involved and all the facts

262 U.S. 679, *689; 43 S. Ct. 675, **677;
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and circumstances disclosed by the record."

The record clearly shows that the commission in arriving at its final figure did not accord proper, if any, weight to the greatly enhanced costs of construction in 1920 over those prevailing about 1915 and before the war, as established by uncontradicted [**678] evidence; and the company's detailed estimated cost of reproduction new, less depreciation, at 1920 prices, appears to have been wholly disregarded. This was erroneous. Missouri ex rel. Southwestern Bell Telephone Co. v. Public Service Commission, ante, 276. Plaintiff in error is entitled under the due process clause of the Fourteenth Amendment to the independent judgment of the court as to both law and facts. Ohio Valley Water Co. v. Ben Avon Borough, 253 U.S. 287, 289, and cases cited.

We quote further from the court's opinion (pp. 739, 740):

"In our opinion the commission was justified by the law and by the facts in finding as a basis for rate making the sum of \$460,000.00 . . . In our case of Coal & Coke Ry. Co. v. Conley, 67 W. Va. 129, it is said: 'It seems to be generally held that, in the absence of peculiar and extraordinary conditions, such as a more costly plant than the public service of the Community requires, or the erection of a plant at an actual, though extravagant, cost, or the purchase of one at an exorbitant or inflated price, the actual amount of money invested is to be taken as the basis, and upon this a return must be allowed equivalent to that which is ordinarily received in the locality in which the business is done, upon capital invested in similar enterprises. In addition to this, consideration must be given to the nature of the investment, a higher rate [*690] being regarded as justified by the risk incident to a hazardous investment.'

"That the original cost considered in connection with the history and growth of the utility and the value of the services rendered constitute the principal elements to be considered in connection with rate making, seems to be supported by nearly all the authorities."

The question in the case is whether the rates prescribed in the commission's order are confiscatory and therefore beyond legislative power. [HN1] Rates which are not sufficient to yield a reasonable return on the value of the property used at the time it is being used to render the service are unjust, unreasonable and confiscatory, and their enforcement deprives the public utility company of its property in violation of the Fourteenth Amendment. This is so well settled by numerous decisions of this Court that citation of the cases is scarcely necessary. "What the company is entitled to ask is a fair return upon the [***1182] value of that which it employs for the public convenience." Smyth v. Ames, (1898) 169 U.S. 466, 547.

"There must be a fair return upon the reasonable value of the property at the time it is being used for the public. . . .

"And we concur with the court below in holding that [HN2] the value of the property is to be determined as of the time when the inquiry is made regarding the rates. If the property, which legally enters into the consideration of the question of rates, has increased in value since it was acquired, the company is entitled to the benefit of such increase." Willcox v. Consolidated Gas Co., (1909) 212 U.S. 19, 41, 52.

"The ascertainment of that value is not controlled by artificial rules. It is not a matter of formulas, but there must be reasonable judgment having its basis in a proper consideration of all relevant facts." Minnesota Rate Cases, (1913) 230 U.S. 352, 434.

[*691] "And in order to ascertain that value, the original cost of construction, the amount expended in permanent improvements, the amount and market value of its bonds and stock, the present as compared with the original cost of construction, the probable earning capacity of the property under particular rates prescribed by statute, and the sum required to meet operating expenses, are all matters for consideration, and are to be given such weight as may be just and right in each case. We do not say that there may not be other matters to be regarded in estimating the value of the property." Smyth v. Ames, *supra*, 546, 547.

". . . . The making of a just return for the use of the property involves the recognition of its fair value if it be more than

262 U.S. 679, *691; 43 S. Ct. 675, **678;
67 L. Ed. 1176, ***1182; 1923 U.S. LEXIS 2676

its cost. The property is held in private ownership and it is that property, and not the original cost of it, of which the owner may not be deprived without due process of law." Minnesota Rate Cases, *supra*, 454.

In Missouri ex rel. Southwestern Bell Telephone Co. v. Public Service Commission, *supra*, applying the principles of the cases above cited and others, this Court said:

"Obviously, the Commission undertook to value the property without according any weight to the greatly enhanced costs of material, labor, supplies, etc., over those prevailing in 1913, 1914 and 1916. As matter of common knowledge, these increases were large. Competent witnesses estimated them as 45 to 50 per centum . . . It is impossible to ascertain what will amount to a fair return upon properties devoted to public service without giving consideration to the cost of labor, supplies, etc., at the time the investigation is made. An honest and intelligent forecast of probable future values made upon a view of all the relevant circumstances, is essential. If the highly important element of present costs is wholly disregarded such a forecast becomes impossible. Estimates for to-morrow cannot ignore prices of today."

[*692] It is clear that the court also failed to give proper consideration to the higher cost of construction in 1920 over that in 1915 and before the war, and failed to give weight to cost of reproduction less depreciation on the basis of 1920 prices, or to the testimony of the company's valuation engineer, based on present and past costs of construction, that the property in his opinion, was worth \$900,000. The final figure, \$460,000, was arrived [**679] at substantially on the basis of actual cost less depreciation plus ten per cent. for going value and \$10,000 for working capital. This resulted in a valuation considerably and materially less than would have been reached by a fair and just consideration of all the facts. The valuation cannot be sustained. Other objections to the valuation need not be considered.

3. Rate of return. The state commission found that the company's net annual income should be approximately \$37,000, in order to enable it to earn 8 per cent. for return and depreciation upon the value of its property as fixed by it. Deducting 2 per cent. for depreciation, there remains 6 per cent. on \$460,000, amounting to \$27,600 for return. This was approved by the state court.

The company contends that the rate of return is too low and confiscatory. [HN3] What annual rate will constitute just compensation depends upon many circumstances and must be determined by the exercise of a fair and enlightened judgment, having regard to all relevant facts. [HN4] A public utility is entitled to such rates as will permit it to earn a return on the value of the property which it employs for the convenience of the public equal to that generally being made at the same time and in the same general part of the country on investments in other business undertakings which are attended by corresponding [***1183] risks and uncertainties; but it has no constitutional right to profits such as are realized or anticipated in [*693] highly profitable enterprises or speculative ventures. [HN5] The return should be reasonably sufficient to assure confidence in the financial soundness of the utility and should be adequate, under efficient and economical management, to maintain and support its credit and enable it to raise the money necessary for the proper discharge of its public duties. A rate of return may be reasonable at one time and become too high or too low by changes affecting opportunities for investment, the money market and business conditions generally.

In 1909, this Court, in *Willcox v. Consolidated Gas Co.*, 212 U.S. 19, 48-50, held that [HN6] the question whether a rate yields such a return as not to be confiscatory depends upon circumstances, locality and risk, and that no proper rate can be established for all cases; and that, under the circumstances of that case, 6 per cent. was a fair return on the value of the property employed in supplying gas to the City of New York, and that a rate yielding that return was not confiscatory. In that case the investment was held to be safe, returns certain and risk reduced almost to a minimum -- as nearly a safe and secure investment as could be imagined in regard to any private manufacturing enterprise.

In 1912, in *Cedar Rapids Gas Light Co. v. Cedar Rapids*, 223 U.S. 655, 670, this Court declined to reverse the state court where the value of the plant considerably exceeded its cost, and the estimated return was over 6 per cent.

In 1915, in *Des Moines Gas Co. v. Des Moines*, 238 U.S. 153, 172, this Court declined to reverse the United States District Court in refusing an injunction upon the conclusion reached that a return of 6 per cent. per annum upon the

262 U.S. 679, *693; 43 S. Ct. 675, **679;
67 L. Ed. 1176, ***1183; 1923 U.S. LEXIS 2676

value would not be confiscatory.

In 1919, this Court in Lincoln Gas Co. v. Lincoln, 250 U.S. 256, 268, declined on the facts of that case to approve a finding that no rate yielding as much as 6 per [*694] cent. on the invested capital could be regarded as confiscatory. Speaking for the Court, Mr. Justice Pitney said:

"It is a matter of common knowledge that, owing principally to the world war, the costs of labor and supplies of every kind have greatly advanced since the ordinance was adopted, and largely since this cause was last heard in the court below. And it is equally well known that annual returns upon capital and enterprise the world over have materially increased, so that what would have been a proper rate of return for capital invested in gas plants and similar public utilities a few years ago furnishes no safe criterion for the present or for the future."

In 1921, in Brush Electric Co. v. Galveston, the United States District Court held 8 per cent. a fair rate of return.⁴

⁴ This case was affirmed by this Court, June 4, 1923, ante, 443.

In January, 1923, in Minneapolis v. Rand, the Circuit Court of Appeals of the Eighth Circuit (285 Fed. 818, 830) sustained, as against the attack of the city on the ground that it was excessive, 7 1/2 per cent., found by a special master and approved by the District Court as a fair and reasonable return on the capital investment -- the value of the property.

Investors take into account the result of past operations, especially in recent years, when determining the terms upon which they will invest in such an undertaking. Low, uncertain or irregular income makes for low prices for the securities of the utility and higher rates of interest to be demanded by investors. The fact that the company may not insist as a matter of constitutional right that past losses be made up by rates to be applied in the present and future tends to weaken credit, and the fact that the utility is protected against being compelled to serve for confiscatory rates tends to support it. In [*695] this case the record shows that the rate of return has been low through a long period up to the time of the inquiry by the commission here involved. For example, the average rate of return on the total cost of the property from 1895 to 1915, inclusive, was less than 5 per cent.; from 1911 to 1915, inclusive, [**680] about 4.4 per cent., without allowance for depreciation. In 1919 the net operating income was approximately \$24,700, leaving \$15,500, approximately, or 3.4 per cent. on \$460,000 fixed by the commission, after deducting 2 per cent. for depreciation. In 1920, the net operating income was approximately \$25,465, leaving \$16,265 for return, after allowing for depreciation. Under the facts and circumstances indicated by the record, we think that a rate of return of 6 per cent. upon the value of the property [***1184] is substantially too low to constitute just compensation for the use of the property employed to render the service.

The judgment of the Supreme Court of Appeals of West Virginia is reversed.

CONCUR BY: BRANDEIS

CONCUR

MR. JUSTICE BRANDEIS concurs in the judgment of reversal for the reasons stated by him in Missouri ex rel. Southwestern Bell Telephone Co. v. Public Service Commission of Missouri, supra.

FEDERAL POWER COMMISSION ET AL. v. HOPE NATURAL GAS CO.

No. 34

SUPREME COURT OF THE UNITED STATES

320 U.S. 591; 64 S. Ct. 281; 88 L. Ed. 333; 1944 U.S. LEXIS 1204

October 20, 21, 1943, Argued
January 3, 1944, Decided

PRIOR HISTORY: CERTIORARI TO THE CIRCUIT COURT OF APPEALS FOR THE FOURTH CIRCUIT.*

* Together with No. 35, City of Cleveland v. Hope Natural Gas Co., also on writ of certiorari to the Circuit Court of Appeals for the Fourth Circuit.

CERTIORARI, 319 U.S. 735, to review a decree setting aside an order of the Federal Power Commission, 44 P. U. R. (N. S.) 1, under the Natural Gas Act.

DISPOSITION: 134 F.2d 287, reversed.

CASE SUMMARY:

PROCEDURAL POSTURE: Certiorari was granted to review a judgment of the United States Court of Appeals for the Fourth Circuit, which vacated a rate order issued by petitioner Federal Power Commission with regard to rates that respondent gas company was permitted to charge on the basis that the rate order was unreasonable.

OVERVIEW: The United States Supreme Court reversed the decision to set aside the rate order issued by petitioner, the Federal Power Commission. The Court found that respondent was a natural gas company that supplied natural gas to companies in Ohio and Pennsylvania and also supplied natural gas directly to consumers. Petitioner brought a complaint against respondent, arguing that respondent's rates were unreasonable. After an extensive factual review, the Court held that the Natural Gas Act gave petitioners the power to adjust respondent's rates and that the rate determined by petitioner was just and reasonable. In so holding, the Court stated that petitioner correctly considered the factors in reaching the rate and did not exceed their authority. Further, the Court held that petitioners properly considered the impact on the state in which respondent operated when petitioner issued the rate order. Additionally, the Court held that the rate was not unfairly discriminatory between domestic and industrial users. Therefore, the Court found that the rate order was permissible and reversed the judgment of the appellate court.

OUTCOME: The judgment finding that the rate order covering what respondent could charge for natural gas issued by petitioner Federal Power Commission was unreasonable and vacating the order was reversed because petitioner had the power to issue the order and the rate was just and reasonable.

CORE TERMS: natural gas, industrial, consumer, domestic, rate base, depreciation, interstate, fuel, public interest, fixing, depletion, rate-making, prudent, operating expenses, annual, oil, fair value, customer, transportation, consumption, resale, reduction, reasonable rates, interstate commerce, conservation, earning, reproduction, user, investor, pipeline

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LexisNexis(R) Headnotes

Communications Law > U.S. Federal Communications Commission > Jurisdiction

Energy & Utilities Law > Administrative Proceedings > U.S. Federal Energy Regulatory Commission > General Overview

Energy & Utilities Law > Gas Industry > Natural Gas Act > General Overview

[HN1] Congress provides in § 4(a) of the Natural Gas Act that all natural gas rates subject to the jurisdiction of the Federal Power Commission shall be just and reasonable, and any such rate or charge that is not just and reasonable is hereby declared to be unlawful. Section 5(a) of the Natural Gas Act gives the Commission the power, after hearing, to determine the just and reasonable rate to be thereafter observed and to fix the rate by order. Section 5(a) of the Natural Gas Act also empowers the Commission to order a decrease where existing rates are unjust, unlawful, or are not the lowest reasonable rates. And Congress provides in § 19(a) of the Natural Gas Act that on review of these rate orders the finding of the Commission as to the facts, if supported by substantial evidence, shall be conclusive.

Energy & Utilities Law > Administrative Proceedings > U.S. Federal Energy Regulatory Commission > General Overview

Energy & Utilities Law > Gas Industry > Natural Gas Act > General Overview

[HN2] The Federal Power Commission is not bound to the use of any single formula or combination of formulae in determining rates. Its rate-making function, moreover, involves the making of pragmatic adjustments. And when the Commission's order is challenged in the courts, the question is whether that order viewed in its entirety meets the requirements of the Natural Gas Act. Under the statutory standard of just and reasonable it is the result reached not the method employed which is controlling.

Energy & Utilities Law > Administrative Proceedings > U.S. Federal Energy Regulatory Commission > General Overview

Energy & Utilities Law > Gas Industry > Natural Gas Act > General Overview

[HN3] It is not theory but the impact of the rate order which counts. If the total effect of the rate order cannot be said to be unjust and unreasonable, judicial inquiry under the Natural Gas Act is at an end. The fact that the method employed to reach that result may contain infirmities is not then important.

Energy & Utilities Law > Administrative Proceedings > U.S. Federal Energy Regulatory Commission > General Overview

Energy & Utilities Law > Gas Industry > Natural Gas Act > General Overview

Transportation Law > Rail Transportation > Railroad Commissions

[HN4] The Federal Power Commission's order does not become suspect by reason of the fact that it is challenged. It is the product of expert judgment which carries a presumption of validity. And he who would upset the rate order under the Natural Gas Act carries the heavy burden of making a convincing showing that it is invalid because it is unjust and unreasonable in its consequences.

Energy & Utilities Law > Utility Companies > Rates > General Overview

[HN5] Rates which enable the company to operate successfully, to maintain its financial integrity, to attract capital, and to compensate its investors for the risks assumed certainly cannot be condemned as invalid, even though they might produce only a meager return on the so-called fair value rate base.

Energy & Utilities Law > Gas Industry > General Overview

Energy & Utilities Law > Utility Companies > Rates > General Overview

[HN6] There is no constitutional requirement that an owner who embarks in a wasting-asset business of limited life shall receive at the end more than he has put into it. The ultimate exhaustion of the supply is inevitable in the case of all natural gas companies. Moreover, the United States Supreme Court recognizes the propriety of basing annual depreciation on cost. By such a procedure the utility is made whole and the integrity of its investment maintained. No more is required.

320 U.S. 591, *; 64 S. Ct. 281, **;
88 L. Ed. 333, ***; 1944 U.S. LEXIS 1204

LAWYERS' EDITION HEADNOTES:

[***LEdHN1]

CONSTITUTIONAL LAW, §730

due process -- regulation of prices. --

Headnote:[1]

The fact that, by the fixing of prices, the value of the property affected is reduced does not mean that the regulation is invalid.

[***LEdHN2]

PUBLIC UTILITIES, §10

fixing rates -- "fair value." --

Headnote:[2]

"Fair value" is the end, not the starting point, of the process of ratemaking when the value of the going enterprise depends on earnings under whatever rates may be anticipated.

[***LEdHN3]

GAS, §4

Natural Gas Act -- reasonableness of rates. --

Headnote:[3]

The result reached, not the method employed, is controlling in determining what is a "just and reasonable rate" within 5(a) of the Natural Gas Act (15 USC 717).

[***LEdHN4]

FEDERAL POWER COMMISSION, §1

review of orders -- Natural Gas Act. --

Headnote:[4]

If the total effect of a rate order of the Federal Power Commission under the Natural Gas Act cannot be said to be unjust and unreasonable, judicial inquiry under the Act is at an end; the fact that the method employed by the Commission to reach that result may contain infirmities is not then important.

[***LEdHN5]

EVIDENCE, §251

presumption -- validity of rate order of Federal Power Commission. --

Headnote:[5]

320 U.S. 591, *; 64 S. Ct. 281, **;
88 L. Ed. 333, ***LEdHN5; 1944 U.S. LEXIS 1204

A rate order of the Federal Power Commission issued under the Natural Gas Act (15 USC 717) carries a presumption of validity, and one who would upset such order has the heavy burden of making a convincing showing that it is invalid because it is unjust and unreasonable in its consequences.

[***LEdHN6]

GAS, §3

fixing rates -- Natural Gas Act -- considering interests of investors. --

Headnote:[6]

The rate-making process to be followed by the Federal Power Commission under the Natural Gas Act (15 USC 717) should include consideration of the interests, not only of the consumers, but also of the investors, in order that returns on investments may be sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital.

[***LEdHN7]

GAS, §6

rates -- valuation -- Natural Gas Act -- "actual legitimate cost" as base -- reasonableness of order. --

Headnote:[7]

An order of the Federal Power Commission fixing, on the basis of "actual legitimate cost" rather than reproduction cost and trended original cost, a valuation of \$ 33,712,526 on the properties of a natural gas company, allowing it a rate of return of 6 1/2 per cent, in a proceeding under the Natural Gas Act (15 USC 717), issued after full consideration of the financial history and present status of the company and the natural gas industry and of general economic conditions, and stressing the importance of maintaining the financial integrity of the company, cannot be said to be unjust and unreasonable, as against the company's contention that the rate base should be fixed at \$ 66,000,000, where the par amount of the outstanding stock is \$ 28,000,000 and only about \$ 17,000,000 of this was issued for cash or other assets, the company, organized in 1908, had paid over \$ 97,000,000 in cash dividends, and up to 1940 had accumulated an earned surplus of \$ 8,000,000 and a depletion and depreciation reserve of \$ 46,000,000, its average earnings had been twelve per cent on its invested capital and twenty per cent on the capital stock issued for cash or other assets, it had paid dividends of ten per cent in three recent years, and in four years its earned surplus had increased to almost half the value of its outstanding stock.

[***LEdHN8]

GAS, §4

Natural Gas Act -- reasonableness of rates. --

Headnote:[8]

Rates, fixed by the Federal Power Commission under the Natural Gas Act (15 USC 717), which enable the company to operate successfully, to maintain its financial integrity, to attract capital, and to compensate its investors for the risks assumed, cannot be condemned as invalid, even though they may produce only a meager return on an alleged "fair value" rate base.

[***LEdHN9]

320 U.S. 591, *; 64 S. Ct. 281, **;
88 L. Ed. 333, ***LEdHN9; 1944 U.S. LEXIS 1204

GAS, §6

Natural Gas Act -- reasonableness of rates -- valuation -- reproduction cost. --

Headnote:[9]

Where, in a rate proceeding under the Natural Gas Act (15 USC 717), the rate base contended for by the company, computed on reproduction cost new, would, in a recent four-year period, have produced a return of 3.27 per cent, whereas in fact the company in that period earned an average of 9 per cent, the Federal Power Commission is justified in concluding that the 3.27 per cent rate is the result of an inflation of the rate base, and that, accordingly, reproduction cost new is not a suitable measure for fixing the proper base.

[***LEdHN10]

GAS, §10

reasonableness of rates -- Natural Gas Act -- allowances for depletion and depreciation. --

Headnote:[10]

The use, by the Federal Power Commission in a rate proceeding under the Natural Gas Act (15 USC 717), of "actual legitimate cost" as the basis of both the accrued and annual allowances for depletion and depreciation, rejecting as such basis an excessive reserve accumulated by the company as a result of incorrect depletion and depreciation practices, is proper, as against the view that such allowances should be computed on the basis of "present fair value," where, on the basis adopted, the company, operating a wasting-asset business, is made whole, and the integrity of its investment is maintained.

[***LEdHN11]

GAS, §10

reasonableness of rates -- Natural Gas Act -- allowances for depletion and depreciation. --

Headnote:[11]

The fact that a natural gas company is a public utility required to continue its services to the public and not scheduled to end its business on a day certain does not, for the purpose of fixing its rates under the Natural Gas Act (15 USC 717), require a different basis of allowance for depletion and depreciation than is used in the case of other companies conducting a wasting-asset business.

[***LEdHN12]

CONSTITUTIONAL LAW, §733

due process -- gas rates -- Natural Gas Act. --

Headnote:[12]

A rate order which conforms to the requirement of 5(a) of the Natural Gas Act (15 USC 717) that the rate be "just and reasonable," conforms also to constitutional requirements.

[***LEdHN13]

320 U.S. 591, *; 64 S. Ct. 281, **;
88 L. Ed. 333, ***LEdHN13; 1944 U.S. LEXIS 1204

GAS, §3

Natural Gas Act -- fixing rates -- considering interests of producing state. --

Headnote:[13]

The interests of the producing state and its citizens in the conservation and development of its natural gas resources, in the protection of reversionary interests in gas leaseholds, and in the maintenance of the tax value of gas properties within the state, are not proper subjects for consideration by the Federal Power Commission in a rate proceeding under the Natural Gas Act (15 USC 717), and cannot be invoked to compel or justify the fixing of a higher rate than would otherwise be warranted, in view of the primary purpose of the Act to protect consumers of gas against exploitation through high rates.

[***LEdHN14]

GAS, §11

Natural Gas Act -- purpose -- relation to state regulation. --

Headnote:[14]

The Natural Gas Act (15 USC 717) was designed to complement, not to usurp, state authority, its purpose being to regulate that wholesale distribution of gas in interstate commerce which is not subject to state regulation.

[***LEdHN15]

GAS, §4

reasonableness of rates -- Natural Gas Act. --

Headnote:[15]

The standards for the determination of the amount which a private operator should be allowed to earn from the sale of natural gas across state lines through an established distribution system are provided for by 4 and 5, not by 7, of the Natural Gas Act (15 USC 717).

[***LEdHN16]

FEDERAL POWER COMMISSION, §1

review -- rate order -- court's substitution of own judgment. --

Headnote:[16]

The court, in reviewing a rate order of the Federal Power Commission under the Natural Gas Act (15 USC 717), will not substitute its judgment for that of the Commission in determining whether the rate allowed is enough to induce private enterprise to perform completely and efficiently its functions for the public, where these matters have received adequate consideration by the Commission.

[***LEdHN17]

FEDERAL POWER COMMISSION, §1

320 U.S. 591, *; 64 S. Ct. 281, **;
88 L. Ed. 333, ***LEdHN17; 1944 U.S. LEXIS 1204

Natural Gas Act -- rate proceeding -- relative rates for industrial and domestic uses. --

Headnote:[17]

The issue of the relative rates to be allowed for industrial and domestic uses of gas is not before the Federal Power Commission in a proceeding to fix the rates of an interstate gas company under 4 and 5 of the Natural Gas Act (15 USC 717), where the company merely sells the gas wholesale to distributors, and it is the latter who distribute it among the industrial and domestic consumers.

[***LEdHN18]

GAS, §3

Natural Gas Act -- fixing rates -- higher rates for industrial uses. --

Headnote:[18]

The desirability of discouraging the use of gas for industrial uses is not a proper subject of consideration by the Federal Power Commission in a rate proceeding under the Natural Gas Act (15 USC 717), and the Commission is without power, on this ground, to place a rate on industrial uses higher than would otherwise be warranted under the Act.

[***LEdHN19]

GAS, §3

Natural Gas Act -- rate regulation -- conventional standards. --

Headnote:[19]

The provisions of 4 and 5 of the Natural Gas Act (15 USC 717) for the fixing of "just and reasonable" rates were not intended to introduce any novel doctrines, but only to embrace the conventional standards, of rate making for natural gas companies.

[***LEdHN20]

FEDERAL POWER COMMISSION, §1

review -- rate order under Natural Gas Act -- considering question not raised. --

Headnote:[20]

The question of discrimination between industrial and domestic users, in violation of 4(b) of the Natural Gas Act (15 USC 717), is not properly before the courts on a petition to review a rate order of the Federal Power Commission in a proceeding under the Act, where the Commission has failed to make any findings under 4(b), and such failure is not challenged in the petition to review, and is not raised or argued by any party before the courts.

[***LEdHN21]

FEDERAL POWER COMMISSION, §1

review -- functions of courts. --

Headnote:[21]

320 U.S. 591, *; 64 S. Ct. 281, **;
88 L. Ed. 333, ***LEdHN21; 1944 U.S. LEXIS 1204

Congress having intrusted administration of the Natural Gas Act (15 USC 717) to the Federal Power Commission, rather than to the courts, it is not for the courts, apart from the requirements of judicial review, to advise the Commission how to discharge its functions.

[***LEdHN22]

FEDERAL POWER COMMISSION, §1

review -- unauthorized findings -- lawfulness of past rates. --

Headnote:[22]

Findings as to the lawfulness of past rates, made by the Federal Power Commission under the Natural Gas Act (15 USC 717) in aid of state regulation, despite the Commission's admitted lack of authority under the Act to fix past rates or to make reparation orders, are not reviewable under 19(b) of the Act giving any party "aggrieved by an order" the right to a review "of such order," since, there being no authority to enforce findings of this kind, the parties are not adversely affected by them.

[***LEdHN23]

ADMINISTRATIVE LAW, §191

reviewability of order -- future adverse effect. --

Headnote:[23]

An administrative order which does not of itself adversely affect a party, but affects him only through the contingency of possible future action by some other agency, is not reviewable by the courts.

SYLLABUS

1. The validity of an order of the Federal Power Commission fixing rates under the Natural Gas Act is to be determined on judicial review by whether the impact or total effect of the order is just and reasonable rather than by the method of computing the rate base. P. 602.
2. One who seeks to have set aside an order of the Federal Power Commission fixing rates under the Natural Gas Act has the burden of showing convincingly that it is unjust and unreasonable in its consequences. P. 602.
3. An order of the Federal Power Commission reducing respondent's rates for sales of natural gas in interstate commerce, *held* valid under the Natural Gas Act. P. 603.

The rate base determined by the Commission was found by it to be the "actual legitimate cost" of the company's interstate property, less depletion and depreciation, plus allowances for unoperated acreage, working capital, and future net capital additions. "Reproduction cost new" and "trended original cost" were given no weight. Accrued depletion and depreciation and the annual allowance for depletion and depreciation were determined by application of the "economic-service-life" method to "actual legitimate cost."

4. Considering the amount of the annual return which the company would be permitted to earn on its property in interstate service, and the various factors which that return reflects, this Court is unable to say that the rates fixed by the Commission are not "just and reasonable" under the Act. P. 604.
5. Rates which enable a natural gas company to operate successfully, to maintain its financial integrity, to attract capital, and to compensate its investors for the risks assumed can not be condemned as unjust and unreasonable under the

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Natural Gas Act, even though they might produce only a meager return on a rate base computed on the "present fair value" method. P. 605.

6. The rationale of the decision renders it unnecessary to determine whether the Commission's exclusion from the rate base of well-drilling and other costs, previously charged to operating expenses, was consistent with the "prudent investment" theory as developed and applied in particular cases. P. 605.

7. *United Railways Co. v. West*, 280 U.S. 234, so far as it rejects cost as the basis of depreciation allowances, is disapproved. P. 606.

8. The requirements of the Constitution in respect of rates are not more exacting than the standards of the Act; and a rate order valid under the latter is consistent with the former. P. 607.

9. In fixing "just and reasonable" rates under §§ 4 and 5 of the Natural Gas Act, for natural gas sold in interstate commerce by a private operator through an established distribution system, the Commission was not required to take into consideration the indirect benefits -- affecting the economy, conservation policies, and tax revenues -- which the producing State might derive from higher valuations and rates. P. 609.

10. The suggestion that the Commission did not allow for gas production a return sufficient to induce private enterprise to perform completely and efficiently its functions for the public is unsupported. P. 615.

11. The Commission is not empowered by the provisions of §§ 4 and 5, which authorize it to fix "just and reasonable" rates, to fix rates calculated to discourage intrastate resales for industrial use. P. 616.

12. The question whether the rates charged by the company discriminate against domestic users and in favor of industrial users is not presented. P. 617.

13. Findings of the Commission as to the lawfulness of past rates, *held* not reviewable under § 19 (b) of the Act. P. 618.

COUNSEL: Assistant Attorney General Shea, with whom Solicitor General Fahy and Messrs. Paul A. Freund, K. Norman Diamond, Melvin Richter, Charles V. Shannon, Milford Springer, A. F. O'Neil, Clyde B. MacDonald, Harold A. Scragg, and Samuel Graff Miller were on the brief, for petitioners in No. 34; and Mr. Spencer W. Reeder, with whom Messrs. Robert E. May and Robert M. Morgan were on the brief, for petitioner in No. 35.

Mr. William B. Cockley, with whom Messrs. Walter J. Milde and William A. Dougherty were on the brief, for respondent.

By Special leave of Court, Mr. M. M. Neely, Governor of West Virginia, with whom Messrs. Ira J. Partlow, Assistant Attorney General, and W. W. Goldsmith were on the brief, for the State of West Virginia, as amicus curiae, urging affirmance.

Briefs of amici curiae were filed by Mr. Gay H. Brown, on behalf of the Public Service Commission of New York, and Messrs. John E. Benton and Frederick G. Hamley, on behalf of the National Association of Railroad and Utilities Commissioners, in No. 34, urging reversal; and by Messrs. Donald C. McCreery and Robert D. Garver, on behalf of the Cities Service Gas Co., in Nos. 34 and 35, urging affirmance.

JUDGES: Stone, Black, Reed, Frankfurter, Douglas, Murphy, Jackson, Rutledge; Roberts took no part in the consideration or decision of this case.

OPINION BY: DOUGLAS

OPINION

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88 L. Ed. 333, ***LEdHN23; 1944 U.S. LEXIS 1204

[*593] [**283] [***340] MR. JUSTICE DOUGLAS delivered the opinion of the Court.

The primary issue in these cases concerns the validity under the Natural Gas Act of 1938 (52 Stat. 821, 15 U. S. C. § 717) of a rate order issued by the Federal Power Commission reducing the rates chargeable by Hope Natural Gas Co., 44 P. U. R. (N. S.) 1. On a petition for review of the order made pursuant to § 19 (b) of the Act, the [*594] Circuit Court of Appeals set it aside, one judge dissenting. 134 F.2d 287. The cases [**284] are here on petitions for writs of certiorari which we granted because of the public importance of the questions presented.

Hope is a West Virginia corporation organized in 1898. It is a wholly owned subsidiary of Standard Oil Co. (N. J.). Since the date of its organization, it has been in the business of producing, purchasing and marketing natural gas in that state.¹ It sells some of that gas to local consumers in West Virginia. But the great bulk of it goes to five customer companies which receive it at the West Virginia line and distribute it in Ohio and in Pennsylvania.² [***341] In July 1938 the cities of Cleveland and Akron filed complaints with the Commission charging that the rates collected by Hope from East Ohio Gas Co. (an affiliate of Hope which distributes gas in Ohio) were excessive and unreasonable. Later in 1938 the Commission on its own motion instituted an investigation to determine the reasonableness of all of Hope's interstate rates. In March [*595] 1939 the Public Utility Commission of Pennsylvania filed a complaint with the Commission charging that the rates collected by Hope from Peoples Natural Gas. Co. (an affiliate of Hope distributing gas in Pennsylvania) and two non-affiliated companies were unreasonable. The City of Cleveland asked that the challenged rates be declared unlawful and that just and reasonable rates be determined from June 30, 1939 to the date of the Commission's order. The latter finding was requested in aid of state regulation and to afford the Public Utilities Commission of Ohio a proper basis for disposition of a fund collected by East Ohio under bond from Ohio consumers since June 30, 1939. The cases were consolidated and hearings were held.

¹ Hope produces about one-third of its annual gas requirements and purchases the rest under some 300 contracts.

² These five companies are the East Ohio Gas Co., the Peoples Natural Gas Co., the River Gas Co., the Fayette County Gas Co., and the Manufacturers Light & Heat Co. The first three of these companies are, like Hope, subsidiaries of Standard Oil Co. (N. J.). East Ohio and River distribute gas in Ohio, the other three in Pennsylvania. Hope's approximate sales in m. c. f. for 1940 may be classified as follows:

| | |
|---------------------------|------------|
| Local West Virginia sales | 11,000,000 |
| East Ohio | 40,000,000 |
| Peoples | 10,000,000 |
| River | 400,000 |
| Fayette | 860,000 |
| Manufacturers | 2,000,000 |

Hope's natural gas is processed by Hope Construction & Refining Co., an affiliate, for the extraction of gasoline and butane. Domestic Coke Corp., another affiliate, sells coke-oven gas to Hope for boiler fuel.

On May 26, 1942, the Commission entered its order and made its findings. Its order required Hope to decrease its future interstate rates so as to reflect a reduction, on an annual basis, of not less than \$ 3,609,857 in operating revenues. And it established "just and reasonable" average rates per m. c. f. for each of the five customer companies.³ In response to the prayer of the City of Cleveland the Commission also made findings as to the lawfulness of past rates, although concededly it had no authority under the Act to fix past rates or to award reparations. 44 P. U. R. (N. S.) p. 34. It found that the rates collected by Hope from East Ohio were unjust, unreasonable, excessive and therefore unlawful, by \$ 830,892 during 1939, \$ 3,219,551 during 1940, and \$ 2,815,789 on an annual basis since 1940. It further found that just, reasonable, and lawful rates for gas sold by Hope to East Ohio for resale for ultimate public consumption were those required [*596] to produce \$ 11,528,608 for 1939, \$ 11,507,185 for 1940 and \$ 11,910,947 annually since 1940.

320 U.S. 591, *596; 64 S. Ct. 281, **284;
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3 These required minimum reductions of 7 cents per m. c. f. from the 36.5 cents and 35.5 cents rates previously charged East Ohio and Peoples, respectively, and 3 cents per m. c. f. from the 31.5 cents rate previously charged Fayette and Manufacturers.

The Commission established an interstate rate base of \$ 33,712,526 which, it found, represented the "actual legitimate cost" of the company's interstate property less depletion and depreciation and plus unoperated acreage, working capital and future net capital additions. The Commission, beginning with book cost, made [**285] certain adjustments not necessary to relate here and found the "actual legitimate cost" of the plant in interstate service to be \$ 51,957,416, as of December 31, 1940. It deducted accrued depletion and depreciation, which it found to be \$ 22,328,016 on an "economic-service-life" basis. And it added \$ 1,392,021 for future net capital additions, \$ 566,105 for useful unoperated acreage, and \$ 2,125,000 for working capital. It used 1940 as a test year to estimate future revenues and expenses. It allowed over \$ 16,000,000 as annual operating expenses -- about \$ 1,300,000 for taxes, \$ 1,460,000 for depletion and depreciation, \$ 600,000 for exploration and development costs, \$ 8,500,000 for gas purchased. The Commission allowed a net increase of \$ 421,160 over 1940 operating expenses, which amount was to take care of future increase in wages, in West Virginia property taxes, and in exploration and development costs. The total amount of deductions allowed [***342] from interstate revenues was \$ 13,495,584.

Hope introduced evidence from which it estimated reproduction cost of the property at \$ 97,000,000. It also presented a so-called trended "original cost" estimate which exceeded \$ 105,000,000. The latter was designed "to indicate what the original cost of the property would have been if 1938 material and labor prices had prevailed throughout the whole period of the piecemeal construction of the company's property since 1898." 44 P. U. R. (N. S.), pp. 8-9. Hope estimated by the "per cent condition" method accrued depreciation at about 35% of [*597] reproduction cost new. On that basis Hope contended for a rate base of \$ 66,000,000. The Commission refused to place any reliance on reproduction cost new, saying that it was "not predicated upon facts" and was "too conjectural and illusory to be given any weight in these proceedings." *Id.*, p. 8. It likewise refused to give any "probative value" to trended "original cost" since it was "not founded in fact" but was "basically erroneous" and produced "irrational results." *Id.*, p. 9. In determining the amount of accrued depletion and depreciation the Commission, following *Lindheimer v. Illinois Bell Tel. Co.*, 292 U.S. 151, 167-169; *Federal Power Commission v. Natural Gas Pipeline Co.*, 315 U.S. 575, 592-593, based its computation on "actual legitimate cost." It found that Hope during the years when its business was not under regulation did not observe "sound depreciation and depletion practices" but "actually accumulated an excessive reserve" ⁴ of about \$ 46,000,000. *Id.*, p. 18. One member of the Commission thought that the entire amount of the reserve should be deducted from "actual legitimate cost" in determining the rate base. ⁵ The majority of the [*598] Commission concluded, however, that where, as here, a business is brought under regulation for the first time and where incorrect depreciation and depletion practices have prevailed, the deduction of the reserve requirement (actual existing depreciation and depletion) rather than the excessive reserve should be made so as to [**286] lay "a sound basis for future regulation and control of rates." *Id.*, p. 18. As we have pointed out, it determined accrued depletion and depreciation to be \$ 22,328,016; and it allowed approximately \$ 1,460,000 as the annual operating expense for depletion and depreciation. ⁶

4 The book reserve for interstate plant amounted at the end of 1938 to about \$ 18,000,000 more than the amount determined by the Commission as the proper reserve requirement. The Commission also noted that "twice in the past the company has transferred amounts aggregating \$ 7,500,000 from the depreciation and depletion reserve to surplus. When these latter adjustments are taken into account, the excess becomes \$ 25,500,000, which has been exacted from the ratepayers over and above the amount required to cover the consumption of property in the service rendered and thus to keep the investment unimpaired." 44 P. U. R. (N. S.), p. 22.

5 That contention was based on the fact that "every single dollar in the depreciation and depletion reserves" was taken "from gross operating revenues whose only source was the amounts charged customers in the past for natural gas. It is, therefore, a fact that the depreciation and depletion reserves have been contributed by the customers and do not represent any investment by Hope." *Id.*, p. 40. And see *Railroad Commission v. Cumberland Tel. & T. Co.*, 212 U.S. 414, 424-425; 2 Bonbright, *Valuation of Property* (1937), p. 1139.

6 The Commission noted that the case was "free from the usual complexities involved in the estimate of gas reserves because the geologists for the company and the Commission presented estimates of the remaining recoverable gas reserves which were about one per cent apart." 44 P. U. R. (N. S.), pp. 19-20.

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The Commission utilized the "straight-line-basis" for determining the depreciation and depletion reserve requirements. It used estimates of the average service lives of the property by classes based in part on an inspection of the physical condition of the property. And studies were made of Hope's retirement experience and maintenance policies over the years. The average service lives of the various classes of property were converted into depreciation rates and then applied to the cost of the property to ascertain the portion of the cost which had expired in rendering the service.

The record in the present case shows that Hope is on the lookout for new sources of supply of natural gas and is contemplating an extension of its pipe line into Louisiana for that purpose. The Commission recognized in fixing the rates of depreciation that much material may be used again when various present sources of gas supply are exhausted, thus giving that property more than scrap value at the end of its present use.

Hope's estimate of original cost [***343] was about \$ 69,735,000 -- approximately \$ 17,000,000 more than the amount found by the Commission. The item of \$ 17,000,000 was made up largely of expenditures which prior to December 31, 1938, were charged to operating expenses. Chief among those expenditures was some \$ 12,600,000 expended [*599] in well-drilling prior to 1923. Most of that sum was expended by Hope for labor, use of drilling-rigs, hauling, and similar costs of well-drilling. Prior to 1923 Hope followed the general practice of the natural gas industry and charged the cost of drilling wells to operating expenses. Hope continued that practice until the Public Service Commission of West Virginia in 1923 required it to capitalize such expenditures, as does the Commission under its present Uniform System of Accounts.⁷ The Commission refused to add such items to the rate base stating that "No greater injustice to consumers could be done than to allow items as operating expenses and at a later date include them in the rate base, thereby placing multiple charges upon the consumers." *Id.*, p. 12. For the same reason the Commission excluded from the rate base about \$ 1,600,000 of expenditures on properties which Hope acquired from other utilities, the latter having charged those payments to operating expenses. The Commission disallowed certain other overhead items amounting to over \$ 3,000,000 which also had been previously charged to operating expenses. And it refused to add some \$ 632,000 as interest during construction since no interest was in fact paid.

⁷ See Uniform System of Accounts prescribed for Natural Gas Companies effective January 1, 1940, Account No. 332.1.

Hope contended that it should be allowed a return of not less than 8%. The Commission found that an 8% return would be unreasonable but that 6 1/2% was a fair rate of return. That rate of return, applied to the rate base of \$ 33,712,526, would produce \$ 2,191,314 annually, as compared with the present income of not less than \$ 5,801,171.

The Circuit Court of Appeals set aside the order of the Commission for the following reasons. (1) It held that the rate base should reflect the "present fair value" of the [*600] property, that the Commission in determining the "value" should have considered reproduction cost and trended original cost, and that "actual legitimate cost" (prudent investment) was not the proper measure of "fair value" where price levels had changed since the investment. (2) It concluded that the well-drilling costs and overhead items in the amount of some \$ 17,000,000 should have been included in the rate base. (3) It held that accrued depletion and depreciation and the annual allowance for that expense should be computed on the basis of "present fair value" of the property, not on the basis of "actual legitimate cost."

[**287] The Circuit Court of Appeals also held that the Commission had no power to make findings as to past rates in aid of state regulation. But it concluded that those findings were proper as a step in the process of fixing future rates. Viewed in [***344] that light, however, the findings were deemed to be invalidated by the same errors which vitiated the findings on which the rate order was based.

Order Reducing Rates. [HN1] Congress has provided in § 4 (a) of the Natural Gas Act that all natural gas rates subject to the jurisdiction of the Commission "shall be just and reasonable, and any such rate or charge that is not just and reasonable is hereby declared to be unlawful." Sec. 5 (a) gives the Commission the power, after hearing, to determine the "just and reasonable rate" to be thereafter observed and to fix the rate by order. Sec. 5 (a) also empowers the

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Commission to order a "decrease where existing rates are unjust, . . . unlawful, or are not the lowest reasonable rates." And Congress has provided in § 19 (b) that on review of these rate orders the "finding of the Commission as to the facts, if supported by substantial evidence, shall be conclusive." Congress, however, has provided no formula by which the "just and reasonable" rate is to be determined. It has not filled in the [***601**] details of the general prescription ⁸ of § 4 (a) and § 5 (a). It has not expressed in a specific rule the fixed principle of "just and reasonable."

8 Sec. 6 of the Act comes the closest to supplying any definite criteria for rate making. It provides in subsection (a) that, "The Commission may investigate and ascertain the actual legitimate cost of the property of every natural-gas company, the depreciation therein, and, when found necessary for rate-making purposes, other facts which bear on the determination of such cost or depreciation and the fair value of such property." Subsection (b) provides that every natural-gas company on request shall file with the Commission a statement of the "original cost" of its property and shall keep the Commission informed regarding the "cost" of all additions, etc.

[***LEdHR1] [1] [***LEdHR2] [2]When we sustained the constitutionality of the Natural Gas Act in the *Natural Gas Pipeline Co.* case, we stated that the "authority of Congress to regulate the prices of commodities in interstate commerce is at least as great under the Fifth Amendment as is that of the States under the Fourteenth to regulate the prices of commodities in intrastate commerce." 315 U.S. p. 582. Rate-making is indeed but one species of price-fixing. *Munn v. Illinois*, 94 U.S. 113, 134. The fixing of prices, like other applications of the police power, may reduce the value of the property which is being regulated. But the fact that the value is reduced does not mean that the regulation is invalid. *Block v. Hirsh*, 256 U.S. 135, 155-157; *Nebbia v. New York*, 291 U.S. 502, 523-539 and cases cited. It does, however, indicate that "fair value" is the end product of the process of rate-making not the starting point as the Circuit Court of Appeals held. The heart of the matter is that rates cannot be made to depend upon "fair value" when the value of the going enterprise depends on earnings under whatever rates may be anticipated.⁹

⁹ We recently stated that the meaning of the word "value" is to be gathered "from the purpose for which a valuation is being made. Thus the question in a valuation for rate making is how much a utility will be allowed to earn. The basic question in a valuation for reorganization purposes is how much the enterprise in all probability can earn." *Institutional Investors v. Chicago, M., St. P. & P. R. Co.*, 318 U.S. 523, 540.

[*602] [***LEdHR3] [3] [***LEdHR4] [4] [***LEdHR5] [5]We held in *Federal Power Commission v. Natural Gas Pipeline Co.*, *supra*, that [HN2] the Commission was not bound to the use of any single formula or combination of formulae in determining rates. Its rate-making function, moreover, involves the making of "pragmatic adjustments." [*****345**] p. 586. And when the Commission's order is challenged in the courts, the question is whether that order "viewed in its entirety" meets the requirements of the Act. *Id.*, p. 586. Under the statutory standard of "just and reasonable" it is the result reached not the method employed which is controlling. Cf. *Los Angeles Gas & Electric Corp. v. Railroad* [****288**] *Commission*, 289 U.S. 287, 304-305, 314; *West Ohio Gas Co. v. Public Utilities Commission* (No. 1), 294 U.S. 63, 70; *West v. Chesapeake & Potomac Tel. Co.*, 295 U.S. 662, 692-693 (dissenting opinion). [HN3] It is not theory but the impact of the rate order which counts. If the total effect of the rate order cannot be said to be unjust and unreasonable, judicial inquiry under the Act is at an end. The fact that the method employed to reach that result may contain infirmities is not then important. Moreover, [HN4] the Commission's order does not become suspect by reason of the fact that it is challenged. It is the product of expert judgment which carries a presumption of validity. And he who would upset the rate order under the Act carries the heavy burden of making a convincing showing that it is invalid because it is unjust and unreasonable in its consequences. Cf. *Railroad*

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88 L. Ed. 333, ***345; 1944 U.S. LEXIS 1204

Commission v. Cumberland Tel. & T. Co., 212 U.S. 414; *Lindheimer v. Illinois Bell Tel. Co.*, *supra*, pp. 164, 169; *Railroad Commission v. Pacific Gas & Electric Co.*, 302 U.S. 388, 401.

[*603] [***LEdHR6] [6]The rate-making process under the Act, i. e., the fixing of "just and reasonable" rates, involves a balancing of the investor and the consumer interests. Thus we stated in the *Natural Gas Pipeline Co.* case that "regulation does not insure that the business shall produce net revenues." 315 U.S. p. 590. But such considerations aside, the investor interest has a legitimate concern with the financial integrity of the company whose rates are being regulated. From the investor or company point of view it is important that there be enough revenue not only for operating expenses but also for the capital costs of the business. These include service on the debt and dividends on the stock. Cf. *Chicago & Grand Trunk Ry. Co. v. Wellman*, 143 U.S. 339, 345-346. By that standard the return to the equity owner should be commensurate with returns on investments in other enterprises having corresponding risks. That return, moreover, should be sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital. See *Missouri ex rel. Southwestern Bell Tel. Co. v. Public Service Commission*, 262 U.S. 276, 291 (Mr. Justice Brandeis concurring). The conditions under which more or less might be allowed are not important here. Nor is it important to this case to determine the various permissible ways in which any rate base on which the return is computed might be arrived at. For we are of the view that the end result in this case cannot be condemned under the Act as unjust and unreasonable from the investor or company viewpoint.

[***LEdHR7] [7]We have already noted that Hope is a wholly owned subsidiary of the Standard Oil Co. (N. J.). It has no securities outstanding except stock. All of that stock has been owned by Standard since 1908. The par amount presently outstanding is approximately \$ 28,000,000 as compared with the rate base of \$ 33,712,526 established by [*604] the Commission. Of the total outstanding stock \$ 11,000,000 was issued in stock dividends. [***346] The balance, or about \$ 17,000,000, was issued for cash or other assets. During the four decades of its operations Hope has paid over \$ 97,000,000 in cash dividends. It had, moreover, accumulated by 1940 an earned surplus of about \$ 8,000,000. It had thus earned the total investment in the company nearly seven times. Down to 1940 it earned over 20% per year on the average annual amount of its capital stock issued for cash or other assets. On an average invested capital of some \$ 23,000,000 Hope's average earnings have been about 12% a year. And during this period it had accumulated in addition reserves for depletion and depreciation of about \$ 46,000,000. Furthermore, during 1939, 1940 and 1941, Hope paid dividends of 10% on its stock. And in the year 1942, during about half of which the lower rates were in effect, it paid dividends of 7 1/2%. From 1939-1942 its earned surplus increased from \$ 5,250,000 to about \$ 13,700,000, i. e., to almost half the par value of its outstanding stock.

As we have noted, the Commission fixed a rate of return which permits Hope to earn \$ 2,191,314 annually. In determining that amount it stressed the importance of maintaining the financial integrity of the [**289] company. It considered the financial history of Hope and a vast array of data bearing on the natural gas industry, related businesses, and general economic conditions. It noted that the yields on better issues of bonds of natural gas companies sold in the last few years were "close to 3 per cent," 44 P. U. R. (N. S.), p. 33. It stated that the company was a "seasoned enterprise whose risks have been minimized" by adequate provisions for depletion and depreciation (past and present) with "concurrent high profits," by "protected established markets, through affiliated distribution companies, in populous and industrialized areas," and by a supply of gas locally to meet all requirements, [*605] "except on certain peak days in the winter, which it is feasible to supplement in the future with gas from other sources." *Id.*, p. 33. The Commission concluded, "The company's efficient management, established markets, financial record, affiliations, and its prospective business place it in a strong position to attract capital upon favorable terms when it is required." *Id.*, p. 33.

[***LEdHR8] [8] [***LEdHR9] [9]In view of these various considerations we cannot say that an annual return of \$ 2,191,314 is not "just and reasonable" within the meaning of the Act. [HN5] Rates which enable the company to operate successfully, to maintain its financial integrity, to attract capital, and to compensate its investors for the risks assumed certainly cannot be condemned as invalid, even though they might produce only a meager return on the

320 U.S. 591, *605; 64 S. Ct. 281, **289;
88 L. Ed. 333, ***LEdHR9; 1944 U.S. LEXIS 1204

so-called "fair value" rate base. In that connection it will be recalled that Hope contended for a rate base of \$ 66,000,000 computed on reproduction cost new. The Commission points out that if that rate base were accepted, Hope's average rate of return for the four-year period from 1937-1940 would amount to 3.27%. During that period Hope earned an annual average return of about 9% on the average investment. It asked for no rate increases. Its properties were well maintained and operated. As the Commission says, such a modest rate of 3.27% suggests an "inflation of the base on which the rate has been computed." *Dayton Power & Light Co. v. Public Utilities Commission*, 292 U.S. 290, 312. Cf. *Lindheimer v. Illinois Bell Tel. Co.*, *supra*, p. 164. The incongruity between the actual operations and the return computed on the basis of reproduction cost suggests that the Commission was wholly justified in rejecting the latter as the measure of the rate base.

In view of this disposition of the controversy we need not stop to inquire whether the failure of the Commission to add the \$ 17,000,000 of [***347] well-drilling and other costs to [*606] the rate base was consistent with the prudent investment theory as developed and applied in particular cases.

[***LEdHR10] [10] [***LEdHR11] [11] [***LEdHR12] [12] Only a word need be added respecting depletion and depreciation. We held in the *Natural Gas Pipeline Co.* case that [HN6] there was no constitutional requirement "that the owner who embarks in a wasting-asset business of limited life shall receive at the end more than he has put into it." 315 U.S. p. 593. The Circuit Court of Appeals did not think that that rule was applicable here because Hope was a utility required to continue its service to the public and not scheduled to end its business on a day certain as was stipulated to be true of the Natural Gas Pipeline Co. But that distinction is quite immaterial. The ultimate exhaustion of the supply is inevitable in the case of all natural gas companies. Moreover, this Court recognized in *Lindheimer v. Illinois Bell Tel. Co.*, *supra*, the propriety of basing annual depreciation on cost.¹⁰ By such a procedure the [*290] utility is made whole and the integrity of its investment maintained.¹¹ No more is required.¹² We cannot approve the contrary holding [*607] of *United Railways Co. v. West*, 280 U.S. 234, 253-254. Since there are no constitutional requirements more exacting than the standards of the Act, a rate order which conforms to the latter does not run afoul of the former.

10 Chief Justice Hughes said in that case (292 U.S. pp. 168-169): "If the predictions of service life were entirely accurate and retirements were made when and as these predictions were precisely fulfilled, the depreciation reserve would represent the consumption of capital, on a cost basis, according to the method which spreads that loss over the respective service periods. But if the amounts charged to operating expenses and credited to the account for depreciation reserve are excessive, to that extent subscribers for the telephone service are required to provide, in effect, capital contributions, not to make good losses incurred by the utility in the service rendered and thus to keep its investment unimpaired, but to secure additional plant and equipment upon which the utility expects a return."

11 See Mr. Justice Brandeis (dissenting) in *United Railways Co. v. West*, 280 U.S. 234, 259-288, for an extended analysis of the problem.

12 It should be noted that the Act provides no specific rule governing depletion and depreciation. Sec. 9 (a) merely states that the Commission "may from time to time ascertain and determine, and by order fix, the proper and adequate rates of depreciation and amortization of the several classes of property of each natural-gas company used or useful in the production, transportation, or sale of natural gas."

[***LEdHR13] [13] *The Position of West Virginia.* The State of West Virginia, as well as its Public Service Commission, intervened in the proceedings before the Commission and participated in the hearings before it. They have also filed a brief *amicus curiae* here and have participated in the argument at the bar. Their contention is that the result achieved by the rate order "brings consequences which are unjust to West Virginia and its citizens" and which "unfairly depress the value of gas, gas lands and gas leaseholds, unduly restrict development of their natural resources, and arbitrarily transfer their properties to the residents of other states without just compensation therefor."

West Virginia points out that the Hope Natural Gas Co. holds a large number of leases on both producing and unoperated properties. The owner or grantor receives from the operator or grantees delay rentals as compensation for postponed drilling. When a producing well is successfully brought in, the gas lease customarily continues indefinitely

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88 L. Ed. 333, ***LEdHR13; 1944 U.S. LEXIS 1204

for the life of the field. In that case the [***348] operator pays a stipulated gas-well rental or in some cases a gas royalty equivalent to one-eighth of the gas marketed.¹³ Both the owner and operator have valuable property interests in the gas which are separately taxable under West Virginia law. The contention is that the reversionary interests in the leaseholds should be represented in the rate proceedings since it is their gas which is being sold in interstate [*608] commerce. It is argued, moreover, that the owners of the reversionary interests should have the benefit of the "discovery value" of the gas leaseholds, not the interstate consumers. Furthermore, West Virginia contends that the Commission in fixing a rate for natural gas produced in that State should consider the effect of the rate order on the economy of West Virginia. It is pointed out that gas is a wasting asset with a rapidly diminishing supply. As a result West Virginia's gas deposits are becoming increasingly valuable. Nevertheless the rate fixed by the Commission reduces that value. And that reduction, it is said, has severe repercussions on the economy of the State. It is argued in the first place that as a result of this rate reduction Hope's West Virginia property taxes may be decreased in view of the relevance which earnings have under West Virginia law in the assessment of property for tax purposes.¹⁴ Secondly, it is pointed out that West Virginia has a production tax¹⁵ on the "value" of the gas exported from the State. And we are told that for purposes of that tax "value" becomes under West Virginia law "practically the substantial equivalent of market value." Thus West Virginia argues that undervaluation of Hope's gas leaseholds will cost the State many thousands of dollars in taxes. The effect, it is urged, is to impair West Virginia's tax structure for the benefit of Ohio and Pennsylvania consumers. West Virginia emphasizes, moreover, its deep interest in the conservation of its natural resources including its natural gas. It says that a reduction of the value of these leasehold values will jeopardize these conservation policies in three respects: (1) [**291] exploratory development of new fields will be discouraged; (2) abandonment of low-yield high-cost marginal wells will be hastened; and (3) secondary recovery of oil will be hampered. [*609] Furthermore, West Virginia contends that the reduced valuation will harm one of the great industries of the State and that harm to that industry must inevitably affect the welfare of the citizens of the State. It is also pointed out that West Virginia has a large interest in coal and oil as well as in gas and that these forms of fuel are competitive. When the price of gas is materially cheapened, consumers turn to that fuel in preference to the others. As a result this lowering of the price of natural gas will have the effect of depreciating the price of West Virginia coal and oil.

13 See Simonton, *The Nature of the Interest of the Grantee Under an Oil and Gas Lease* (1918), 25 W. Va. L. Quar. 295.

14 *West Penn Power Co. v. Board of Review*, 112 W. Va. 442, 164 S. E. 862.

15 W. Va. Rev. Code of 1943, ch. 11, Art. 13, §§ 2a, 3a.

West Virginia insists that in neglecting this aspect of the problem the Commission failed to perform the function which Congress entrusted to it and that the case should be remanded to the Commission for a modification of its order.¹⁶

16 West Virginia suggests as a possible solution (1) that a "going concern value" of the company's tangible assets be included in the rate base and (2) that the fair market value of gas delivered to customers be added to the outlay for operating expenses and taxes.

We have considered these contentions at length in view of the earnestness with which they have been urged upon us. We have searched the legislative history of the Natural Gas Act for any indication that Congress entrusted to the Commission the various considerations which [***349] West Virginia has advanced here. And our conclusion is that Congress did not.

[***LEdHR14] [14]We pointed out in *Illinois Natural Gas Co. v. Public Service Co.*, 314 U.S. 498, 506, that the purpose of the Natural Gas Act was to provide, "through the exercise of the national power over interstate commerce, an agency for regulating the wholesale distribution to public service companies of natural gas moving interstate, which this

320 U.S. 591, *609; 64 S. Ct. 281, **291;
88 L. Ed. 333, ***LEdHR14; 1944 U.S. LEXIS 1204

Court had declared to be interstate commerce not subject to certain types of state regulation." As stated in the House Report the "basic purpose" of this legislation was "to occupy" the field in which such cases as *Missouri v. Kansas Gas Co.*, 265 U.S. 298, and *Public Utilities Commission v. Attleboro Steam & Electric Co.*, 273 U.S. 83, had held the States might not act. H. Rep. No. 709, 75th Cong., 1st Sess., p. 2. In accomplishing that purpose the bill was designed to take "no authority from State commissions" and was "so drawn as to complement and in no manner usurp State regulatory authority." *Id.*, p. 2. And the Federal Power Commission was given no authority over the "production or gathering of natural gas." § 1 (b).

The primary aim of this legislation was to protect consumers against exploitation at the hands of natural gas companies. Due to the hiatus in regulation which resulted from the *Kansas Gas Co.* case and related decisions state commissions found it difficult or impossible to discover what it cost interstate pipe-line companies to deliver gas within the consuming states; and thus they were thwarted in local regulation. H. Rep. No. 709, *supra*, p. 3. Moreover, the investigations of the Federal Trade Commission had disclosed that the majority of the pipe-line mileage in the country used to transport natural gas, together with an increasing percentage of the natural gas supply for pipe-line transportation, had been acquired by a handful of holding companies.¹⁷ State commissions, independent producers, and communities having or seeking the service were growing quite helpless against these combinations.¹⁸ These were the types of problems with which those participating in the hearings were preoccupied.¹⁹ Congress addressed itself to those specific evils.

¹⁷ S. Doc. 92, Pt. 84-A, ch. XII, Final Report, Federal Trade Commission to the Senate pursuant to S. Res. No. 83, 70th Cong., 1st Sess.

¹⁸ S. Doc. 92, Pt. 84-A, chs. XII, XIII, *op. cit., supra*, note 17.

¹⁹ See Hearings on H. R. 11662, Subcommittee of House Committee on Interstate & Foreign Commerce, 74th Cong., 2d Sess.; Hearings on H. R. 4008, House Committee on Interstate & Foreign Commerce, 75th Cong., 1st Sess.

[*611] The Federal Power Commission was given [**292] broad powers of regulation. The fixing of "just and reasonable" rates (§ 4) with the powers attendant thereto²⁰ was the heart of the new regulatory system. Moreover, the Commission was given certain authority by § 7 (a), on a finding that the action was necessary or desirable "in the public interest," to require natural gas companies to extend or improve their transportation facilities and to sell gas to any authorized local distributor. By § 7 (b) it was given control over the abandonment of facilities or of service. And by § 7 (c), as originally enacted, no natural gas company could undertake the construction or extension of any facilities for the transportation of natural gas to a market in which natural gas was already being served by another company, or sell any natural gas in such a market, without obtaining a certificate of public convenience [***350] and necessity from the Commission. In passing on such applications for certificates of convenience and necessity the Commission was told by § 7 (c), as originally enacted, that it was "the intention of Congress that natural gas shall be sold in interstate commerce for resale for ultimate public consumption for domestic, commercial, industrial, or any other use at the lowest possible reasonable rate consistent with the maintenance of adequate service in the public interest." The latter provision was deleted from § 7 (c) when that subsection was amended by the Act of February 7, 1942, 56 Stat. 83. By that amendment limited grandfather rights were granted companies desiring to extend their facilities and services over the routes or within the area which they were already serving. Moreover, § 7 (c) was broadened so as to require certificates [*612] of public convenience and necessity not only where the extensions were being made to markets in which natural gas was already being sold by another company but in other situations as well.

²⁰ The power to investigate and ascertain the "actual legitimate cost" of property (§ 6), the requirement as to books and records (§ 8), control over rates of depreciation (§ 9), the requirements for periodic and special reports (§ 10), the broad powers of investigation (§ 14) are among the chief powers supporting the rate-making function.

320 U.S. 591, *612; 64 S. Ct. 281, **292;
88 L. Ed. 333, ***350; 1944 U.S. LEXIS 1204

[***LEdHR15] [15]These provisions were plainly designed to protect the consumer interests against exploitation at the hands of private natural gas companies. When it comes to cases of abandonment or of extensions of facilities or service, we may assume that, apart from the express exemptions²¹ contained in § 7, considerations of conservation are material to the issuance of certificates of public convenience and necessity. But the Commission was not asked here for a certificate of public convenience and necessity under § 7 for any proposed construction or extension. It was faced with a determination of the amount which a private operator should be allowed to earn from the sale of natural gas across state lines through an established distribution system. Secs. 4 and 5, not § 7, provide the standards for that determination. We cannot find in the words of the Act or in its history the slightest intimation or suggestion that the exploitation of consumers by private operators through the maintenance of high rates should be allowed to continue provided the producing states obtain indirect benefits from it. That apparently was the Commission's view of the matter, for the same arguments advanced here were presented to the Commission and not adopted by it.

21 Apart from the grandfather clause contained in § 7 (c), there is the provision of § 7 (f) that a natural gas company may enlarge or extend its facilities within the "service area" determined by the Commission without any further authorization.

We do not mean to suggest that Congress was unmindful of the interests of the producing states in their natural gas supplies when it drafted the Natural Gas Act. As we have said, the Act does not intrude on the domain traditionally reserved for control by state commissions; and the Federal Power Commission was given no authority over [*613] "the production or gathering of natural gas." § 1 (b). In addition, Congress recognized the legitimate interests of the States in the conservation of natural gas. By § 11 Congress instructed the Commission to make reports on compacts between two or more States dealing with the conservation, production and transportation of natural gas.²² The Commission was also [**293] directed to recommend further legislation appropriate or necessary to carry out any proposed compact and "to aid in the conservation of natural-gas resources within the United States and in the orderly, equitable, and economic production, transportation, and distribution of natural gas." § 11 (a). Thus Congress was quite aware of the interests [***351] of the producing states in their natural gas supplies.²³ But it left the protection of [*614] those interests to measures other than the maintenance of high rates to private companies. If the Commission is to be compelled to let the stockholders of natural gas companies have a feast so that the producing states may receive crumbs from that table, the present Act must be redesigned. Such a project raises questions of policy which go beyond our province.

22 See Act of July 7, 1943, c. 194, 57 Stat. 383, containing an "Interstate Compact to Conserve Oil and Gas" between Oklahoma, Texas, New Mexico, Illinois, Colorado, and Kansas.

23 As we have pointed out, § 7 (c) was amended by the Act of February 7, 1942 (56 Stat. 83) so as to require certificates of public convenience and necessity not only where the extensions were being made to markets in which natural gas was already being sold by another company but to other situations as well. Considerations of conservation entered into the proposal to give the Act that broader scope. H. Rep. No. 1290, 77th Cong., 1st Sess., pp. 2-3. And see Annual Report, Federal Power Commission (1940) pp. 79, 80; Baum, The Federal Power Commission and State Utility Regulation (1942), p. 261.

The bill amending § 7 (c) originally contained a subsection (h) reading as follows: "Nothing contained in this section shall be construed to affect the authority of a State within which natural gas is produced to authorize or require the construction or extension of facilities for the transportation and sale of such gas within such State: Provided, however, That the Commission, after a hearing upon complaint or upon its own motion, may by order forbid any intrastate construction or extension by any natural-gas company which it shall find will prevent such company from rendering adequate service to its customers in interstate or foreign commerce in territory already being served." See Hearings on H. R. 5249, House Committee on Interstate & Foreign Commerce, 77th Cong., 1st Sess., pp. 7, 11, 21, 29, 32-33. In explanation of its deletion the House Committee Report stated, pp. 4-5: "The increasingly important problems raised by the desire of several States to regulate the use of the natural gas produced therein in the interest of consumers within such States, as against the Federal power to regulate interstate commerce in the interest of both interstate and intrastate consumers, are deemed by the committee to warrant further intensive study and probably a more detailed and comprehensive plan for the handling thereof than that which would have been provided by the stricken

320 U.S. 591, *614; 64 S. Ct. 281, **293;
88 L. Ed. 333, ***351; 1944 U.S. LEXIS 1204

subsection."

It is hardly necessary to add that a limitation on the net earnings of a natural gas company from its interstate business is not a limitation on the power of the producing state either to safeguard its tax revenues from that industry²⁴ or to protect the interests of those who sell their gas to the interstate operator.²⁵ The return which [**294] the Commission [*615] allowed was the net return after all such charges.

24 We have noted that in the annual operating expenses of some \$ 16,000,000 the Commission included West Virginia and federal taxes. And in the net increase of \$ 421,160 over 1940 operating expenses allowed by the Commission was some \$ 80,000 for increased West Virginia property taxes. The adequacy of these amounts has not been challenged here.

25 The Commission included in the aggregate annual operating expenses which it allowed some \$ 8,500,000 for gas purchased. It also allowed about \$ 1,400,000 for natural gas production and about \$ 600,000 for exploration and development.

It is suggested, however, that the Commission in ascertaining the cost of Hope's natural gas production plant proceeded contrary to § 1 (b) which provides that the Act shall not apply to "the production or gathering of natural gas." But such valuation, like the provisions for operating expenses, is essential to the rate-making function as customarily performed in this country. Cf. Smith, *The Control of Power Rates in the United States and England* (1932), 159 *The Annals* 101. Indeed § 14 (b) of the Act gives the Commission the power to "determine the propriety and reasonableness of the inclusion in operating expenses, capital, or surplus of all delay rentals or other forms of rental or compensation for unoperated lands and leases."

[***LEdHR16] [16]It is suggested that the Commission has failed to perform its duty under the Act in that it has not allowed a return for gas production that will be [***352] enough to induce private enterprise to perform completely and efficiently its functions for the public. The Commission, however, was not oblivious of those matters. It considered them. It allowed, for example, delay rentals and exploration and development costs in operating expenses. 26 No serious attempt has been made here to show that they are inadequate. We certainly cannot say that they are, unless we are to substitute our opinions for the expert judgment of the administrators to whom Congress entrusted the decision. Moreover, if in light of experience they turn out to be inadequate for development of new sources of supply, the doors of the Commission are open for increased allowances. This is not an order for all time. The Act contains machinery for obtaining rate adjustments. § 4.

26 See note 25, *supra*.

[***LEdHR17] [17] [***LEdHR18] [18] [***LEdHR19] [19]But it is said that the Commission placed too low a rate on gas for industrial purposes as compared with gas for domestic purposes and that industrial uses should be discouraged. It should be noted in the first place that the rates which the Commission has fixed are Hope's interstate wholesale rates to distributors, not interstate rates to industrial users²⁷ and domestic consumers. We hardly [*616] can assume, in view of the history of the Act and its provisions, that the resales intrastate by the customer companies which distribute the gas to ultimate consumers in Ohio and Pennsylvania are subject to the rate-making powers of the Commission.²⁸ But in any event those rates are not in issue here. Moreover, we fail to find in the power to fix "just and reasonable" rates the power to fix rates which will disallow or discourage resales for industrial use. The Committee Report stated that the Act provided "for regulation along recognized and more or less standardized lines" and that there was "nothing novel in its provisions." H. Rep. No. 709, *supra*, p. 3. Yet if we are now to tell the Commission to fix the rates so as to discourage particular uses, we would indeed be injecting into a rate case a "novel" doctrine which has no express statutory sanction. The same would be true if we were to hold that the wasting-asset nature of the industry required the maintenance of the level of rates so that natural gas companies could make a greater profit on each unit of gas sold. Such theories of rate-making for this industry may or may not be desirable. The difficulty is that § 4 (a) and §

320 U.S. 591, *616; 64 S. Ct. 281, **294;
88 L. Ed. 333, ***LEdHR19; 1944 U.S. LEXIS 1204

5 (a) contain only the conventional standards of rate-making for natural gas companies.²⁹ The [***617**] Act of February 7, 1942, by broadening § 7 gave the Commission some additional authority to deal with the conservation aspects [*****353**] of the problem.³⁰ But § 4 (a) and § 5 (a) were not changed. If the standard [****295**] of "just and reasonable" is to sanction the maintenance of high rates by a natural gas company because they restrict the use of natural gas for certain purposes, the Act must be further amended.

27 The Commission has expressed doubts over its power to fix rates on "direct sales to industries" from interstate pipelines as distinguished from "sales for resale to the industrial customers of distributing companies." Annual Report, Federal Power Commission (1940), p. 11.

28 Sec. 1 (b) of the Act provides: "The provisions of this Act shall apply to the transportation of natural gas in interstate commerce, to the sale in interstate commerce of natural gas for resale for ultimate public consumption for domestic, commercial, industrial, or any other use, and to natural-gas companies engaged in such transportation or sale, but shall not apply to any other transportation or sale of natural gas or to the local distribution of natural gas or to the facilities used for such distribution or to the production or gathering of natural gas." And see § 2 (6), defining a "natural-gas company," and H. Rep. No. 709, *supra*, pp. 2, 3.

29 The wasting-asset characteristic of the industry was recognized prior to the Act as requiring the inclusion of a depletion allowance among operating expenses. See *Columbus Gas & Fuel Co. v. Public Utilities Commission*, 292 U.S. 398, 404-405. But no such theory of rate-making for natural gas companies as is now suggested emerged from the cases arising during the earlier period of regulation.

30 The Commission has been alert to the problems of conservation in its administration of the Act. It has indeed suggested that it might be wise to restrict the use of natural gas "by functions rather than by areas." Annual Report (1940) p. 79.

The Commission stated in that connection that natural gas was particularly adapted to certain industrial uses. But it added that the general use of such gas "under boilers for the production of steam" is "under most circumstances of very questionable social economy." *Ibid.*

[*****LEdHR20**] [20] [*****LEdHR21**] [21]It is finally suggested that the rates charged by Hope are discriminatory as against domestic users and in favor of industrial users. That charge is apparently based on § 4 (b) of the Act which forbids natural gas companies from maintaining "any unreasonable difference in rates, charges, service, facilities, or in any other respect, either as between localities or as between classes of service." The power of the Commission to eliminate any such unreasonable differences or discriminations is plain. § 5 (a). The Commission, however, made no findings under § 4 (b). Its failure in that regard was not challenged in the petition to review. And it has not been raised or argued here by any party. Hence the problem of discrimination has no proper place in the present decision. It will be time enough to pass on that issue when it is presented to us. Congress has entrusted the administration of the Act to the Commission, not to the courts. Apart from the requirements of judicial review it is not [***618**] for us to advise the Commission how to discharge its functions.

[*****LEdHR22**] [22]*Findings as to the Lawfulness of Past Rates.* As we have noted, the Commission made certain findings as to the lawfulness of past rates which Hope had charged its interstate customers. Those findings were made on the complaint of the City of Cleveland and in aid of state regulation. It is conceded that under the Act the Commission has no power to make reparation orders. And its power to fix rates admittedly is limited to those "to be thereafter observed and in force." § 5 (a). But the Commission maintains that it has the power to make findings as to the lawfulness of past rates even though it has no power to fix those rates.³¹ However that may be, we do not think that these findings were reviewable under § 19 (b) of the Act. That section gives any party "aggrieved by an order" of the Commission a review "of such order" in the circuit court of appeals for the circuit where the natural gas company is located or has its principle place of business or in the United States Court of Appeals for the District of Columbia. We do not think that the findings in question fall within that category.

31 The argument is that § 4 (a) makes "unlawful" the charging of any rate that is not just and reasonable. And § 14 (a) gives the Commission power to investigate any matter "which it may find necessary or proper in order to determine whether any person has violated" any provision of the Act. Moreover, § 5 (b) gives the Commission power to investigate and determine the cost of production or

320 U.S. 591, *618; 64 S. Ct. 281, **295;
88 L. Ed. 333, ***LEdHR22; 1944 U.S. LEXIS 1204

transportation of natural gas in cases where it has "no authority to establish a rate governing the transportation or sale of such natural gas." And § 17 (c) directs the Commission to "make available to the several State commissions such information and reports as may be of assistance in State regulation of natural-gas companies." For a discussion of these points by the Commission see 44 P. U. R. (N. S.) pp. 34-35.

[***LEdHR23] [23]The Court recently summarized the various types of administrative action or determination reviewable as orders under the Urgent Deficiencies Act of October 22, [*619] 1913, 28 U. S. C. [***354] §§ 45, 47a, and kindred statutory provisions. *Rochester Telephone Corp. v. United States*, 307 U.S. 125. It was there pointed out that where "the order sought to be reviewed does not of itself adversely affect complainant but only affects his rights adversely on the contingency of future administrative action," it is not reviewable. *Id.*, p. 130. The Court said, "In view of traditional conceptions of federal judicial power, resort to the courts in these situations is either premature or wholly beyond their province." *Id.*, p. 130. [**296] And see *United States v. Los Angeles & Salt Lake R. Co.*, 273 U.S. 299, 309, 310; *Shannahan v. United States*, 303 U.S. 596. These considerations are apposite here. The Commission has no authority to enforce these findings. They are "the exercise solely of the function of investigation." *United States v. Los Angeles & Salt Lake R. Co.*, *supra*, p. 310. They are only a preliminary, interim step towards possible future action -- action not by the Commission but by wholly independent agencies. The outcome of those proceedings may turn on factors other than these findings. These findings may never result in the respondent feeling the pinch of administrative action.

Reversed.

MR. JUSTICE ROBERTS took no part in the consideration or decision of this case.

Opinion of MR. JUSTICE BLACK and MR. JUSTICE MURPHY:

We agree with the Court's opinion and would add nothing to what has been said but for what is patently a wholly gratuitous assertion as to Constitutional law in the dissent of MR. JUSTICE FRANKFURTER. We refer to the statement that "Congressional acquiescence to date in the doctrine of *Chicago, M. & St. P. Ry. Co. v. Minnesota*, *supra*, may fairly be claimed." That was the case in which a majority of this Court was finally induced to expand the meaning [*620] of "due process" so as to give courts power to block efforts of the state and national governments to regulate economic affairs. The present case does not afford a proper occasion to discuss the soundness of that doctrine because, as stated in MR. JUSTICE FRANKFURTER's dissent, "that issue is not here in controversy." The salutary practice whereby courts do not discuss issues in the abstract applies with peculiar force to Constitutional questions. Since, however, the dissent adverts to a highly controversial due process doctrine and implies its acceptance by Congress, we feel compelled to say that we do not understand that Congress voluntarily has acquiesced in a Constitutional principle of government that courts, rather than legislative bodies, possess final authority over regulation of economic affairs. Even this Court has not always fully embraced that principle, and we wish to repeat that we have never acquiesced in it, and do not now. See *Federal Power Commission v. Natural Gas Pipeline Co.*, 315 U.S. 575, 599-601.

DISSENT BY: REED; FRANKFURTER

DISSENT

MR. JUSTICE REED, dissenting:

This case involves the problem of rate making under the Natural Gas Act. Added importance arises from the obvious fact that the principles stated are generally applicable to all federal agencies which are entrusted with the determination of rates for utilities. Because my views differ somewhat from those of my brethren, it may be of some value to set them

320 U.S. 591, *620; 64 S. Ct. 281, **296;
88 L. Ed. 333, ***354; 1944 U.S. LEXIS 1204

out in a summary form.

The Congress may fix utility rates in situations subject to federal control without regard to any standard except the constitutional standards of due process and for taking private [***355] property for public use without just compensation. *Wilson v. New*, 243 U.S. 332, 350. A Commission, however, does not have this freedom of action. Its powers are limited not only by the constitutional standards but also by the standards of the delegation. Here the standard added by the Natural Gas Act is that the rate be "just [*621] and reasonable." ¹ Section 6 ² [**297] throws additional light on the meaning of these words.

¹ Natural Gas Act, § 4 (a), 52 Stat. 821, 822, 15 U. S. C. § 717 (a).

² 52 Stat. 821, 824, 15 U. S. C. § 717e:

"(a) The Commission may investigate and ascertain the actual legitimate cost of the property of every natural-gas company, the depreciation therein, and, when found necessary for rate-making purposes, other facts which bear on the determination of such cost or depreciation and the fair value of such property.

"(b) Every natural-gas company upon request shall file with the Commission an inventory of all or any part of its property and a statement of the original cost thereof, and shall keep the Commission informed regarding the cost of all additions, betterments, extensions, and new construction."

When the phrase was used by Congress to describe allowable rates, it had relation to something ascertainable. The rates were not left to the whim of the Commission. The rates fixed would produce an annual return and that annual return was to be compared with a theoretical just and reasonable return, all risks considered, on the fair value of the property used and useful in the public service at the time of the determination.

Such an abstract test is not precise. The agency charged with its determination has a wide range before it could properly be said by a court that the agency had disregarded statutory standards or had confiscated the property of the utility for public use. Cf. *Chicago, M. & St. P. Ry. Co. v. Minnesota*, 134 U.S. 418, 461-66, dissent. This is as Congress intends. Rates are left to an experienced agency particularly competent by training to appraise the amount required.

The decision as to a reasonable return had not been a source of great difficulty, for borrowers and lenders reached such agreements daily in a multitude of situations; and although the determination of fair value had been troublesome, its essentials had been worked out in fairness to investor and consumer by the time of the enactment [*622] of this Act. Cf. *Los Angeles Gas & Electric Corp. v. Railroad Commission*, 289 U.S. 287, 304 *et seq.* The results were well known to Congress and had that body desired to depart from the traditional concepts of fair value and earnings, it would have stated its intention plainly. *Helvering v. Griffiths*, 318 U.S. 371.

It was already clear that when rates are in dispute, "earnings produced by rates do not afford a standard for decision." 289 U.S. at 305. Historical cost, prudent investment and reproduction cost ³ were all relevant factors in determining fair value. Indeed, disregarding the pioneer investor's risk, if prudent investment and reproduction cost were not distorted by changes in price levels or technology, each of them would produce the same result. The realization from the risk of an investment in a speculative field, such as natural gas utilities, should be reflected [***356] in the present fair value. ⁴ The amount of evidence to be admitted on any point was of course in the agency's reasonable discretion, and it was free to give its own weight to these or other factors and to determine from all the evidence its own judgment as to the necessary rates.

³ "Reproduction cost" has been variously defined, but for rate-making purposes the most useful sense seems to be, the minimum amount necessary to create at the time of the inquiry a modern plant capable of rendering equivalent service. See I Bonbright, *Valuation of Property*

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(1937) 152. Reproduction cost as the cost of building a replica of an obsolescent plant is not of real significance.

"Prudent investment" is not defined by the Court. It may mean the sum originally put in the enterprise, either with or without additional amounts from excess earnings reinvested in the business.

4 It is of no more than bookkeeping significance whether the Commission allows a rate of return commensurate with the risk of the original investment or the lower rate based on current risk and a capitalization reflecting the established earning power of a successful company and the probable cost of duplicating its services. Cf. *A. T. & T. Co. v. United States*, 299 U.S. 232. But the latter is the traditional method.

[*623] I agree with the Court in not imposing a rule of prudent investment alone in determining the rate base. This leaves the Commission free, as I understand it, to use any available evidence for its finding of fair value, including both prudent investment and the cost of installing at the present time an efficient system for furnishing the needed utility service.

My disagreement with the Court arises primarily from its view that it makes no [**298] difference how the Commission reached the rate fixed so long as the result is fair and reasonable. For me the statutory command to the Commission is more explicit. Entirely aside from the constitutional problem of whether the Congress could validly delegate its rate-making power to the Commission, *in toto* and without standards, it did legislate in the light of the relation of fair and reasonable to fair value and reasonable return. The Commission must therefore make its findings in observance of that relationship.

The Federal Power Commission did not, as I construe their action, disregard its statutory duty. They heard the evidence relating to historical and reproduction cost and to the reasonable rate of return, and they appraised its weight. The evidence of reproduction cost was rejected as unpersuasive, but from the other evidence they found a rate base, which is to me a determination of fair value. On that base the earnings allowed seem fair and reasonable. So far as the Commission went in appraising the property employed in the service, I find nothing in the result which indicates confiscation, unfairness or unreasonableness. Good administration of rate-making agencies under this method would avoid undue delay and render revaluations unnecessary except after violent fluctuations of price levels. Rate making under this method has been subjected to criticism. But until Congress changes the standards for the agencies, these rate-making bodies should continue the conventional theory of rate [*624] making. It will probably be simpler to improve present methods than to devise new ones.

But a major error, I think, was committed in the disregard by the Commission of the investment in exploratory operations and other recognized capital costs. These were not considered by the Commission because they were charged to operating expenses by the company at a time when it was unregulated. Congress did not direct the Commission in rate making to deduct from the rate base capital investment which had been recovered during the unregulated period through excess earnings. In my view this part of the investment should no more have been disregarded in the rate base than any other capital investment which previously had been recovered and paid out in dividends or placed to surplus. Even if prudent investment throughout the life of the property is accepted as the formula for figuring the rate base, it seems to me [***357] illogical to throw out the admittedly prudent cost of part of the property because the earnings in the unregulated period had been sufficient to return the prudent cost to the investors over and above a reasonable return. What would the answer be under the theory of the Commission and the Court, if the only prudent investment in this utility had been the seventeen million capital charges which are now disallowed?

For the reasons heretofore stated, I should affirm the action of the Circuit Court of Appeals in returning the proceeding to the Commission for further consideration and should direct the Commission to accept the disallowed capital investment in determining the fair value for rate-making purposes.

MR. JUSTICE FRANKFURTER, dissenting:

My brother JACKSON has analyzed with particularity the economic and social aspects of natural gas as well as [*625] the difficulties which led to the enactment of the Natural Gas Act, especially those arising out of the abortive attempts

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of States to regulate natural gas utilities. The Natural Gas Act of 1938 should receive application in the light of this analysis, and MR. JUSTICE JACKSON has, I believe, drawn relevant inferences regarding the duty of the Federal Power Commission in fixing natural gas rates. His exposition seems to me unanswered, and I shall say only a few words to emphasize my basic agreement with him.

For our society the needs that are met by public utilities are as truly public services as the traditional governmental functions of police and justice. They are not less so when these services are rendered by private enterprise under governmental regulation. Who ultimately determines the ways of regulation, is the decisive aspect in the public supervision of privately-owned utilities. Foreshadowed nearly sixty years ago, *Railroad Commission Cases*, 116 U.S. 307, 331, it was decided more than fifty [**299] years ago that the final say under the Constitution lies with the judiciary and not the legislature. *Chicago, M. & St. P. Ry. Co. v. Minnesota*, 134 U.S. 418.

While legal issues touching the proper distribution of governmental powers under the Constitution may always be raised, Congressional acquiescence to date in the doctrine of *Chicago, M. & St. P. Ry. Co. v. Minnesota, supra*, may fairly be claimed. But in any event that issue is not here in controversy. As pointed out in the opinions of my brethren, Congress has given only limited authority to the Federal Power Commission and made the exercise of that authority subject to judicial review. The Commission is authorized to fix rates chargeable for natural gas. But the rates that it can fix must be "just and reasonable." § 5 of the Natural Gas Act, 15 U. S. C. § 717 (d). Instead of making the Commission's rate determinations final, Congress [*626] specifically provided for court review of such orders. To be sure, "the finding of the Commission as to the facts, if supported by substantial evidence" was made "conclusive," § 19 of the Act, 15 U. S. C. § 717r. But obedience of the requirement of Congress that rates be "just and reasonable" is not an issue of fact of which the Commission's own determination is conclusive. Otherwise, there would be nothing for a court to review except questions of compliance with the procedural provisions of the Natural Gas Act. Congress might have seen fit so to cast its legislation. But it has not done so. It has committed to the administration of the Federal Power Commission the duty of applying standards of fair dealing and of reasonableness relevant to the purposes expressed by the Natural Gas Act. The requirement that rates must be "just and reasonable" means just and reasonable in [***358] relation to appropriate standards. Otherwise Congress would have directed the Commission to fix such rates as in the judgment of the Commission are just and reasonable; it would not have also provided that such determinations by the Commission are subject to court review.

To what sources then are the Commission and the courts to go for ascertaining the standards relevant to the regulation of natural gas rates? It is at this point that MR. JUSTICE JACKSON's analysis seems to me pertinent. There appear to be two alternatives. Either the fixing of natural gas rates must be left to the unguided discretion of the Commission so long as the rates it fixes do not reveal a glaringly bad prophecy of the ability of a regulated utility to continue its service in the future. Or the Commission's rate orders must be founded on due consideration of all the elements of the public interest which the production and distribution of natural gas involve just because it is natural gas. These elements are reflected in the Natural Gas Act, if that Act be applied as an entirety. See, for [*627] instance, §§ 4 (a) (b) (c) (d), 6, and 11, 15 U. S. C., §§ 717c (a) (b) (c) (d), 717c, and 717j. Of course the statute is not concerned with abstract theories of rate-making. But its very foundation is the "public interest," and the public interest is a texture of multiple strands. It includes more than contemporary investors and contemporary consumers. The needs to be served are not restricted to immediacy, and social as well as economic costs must be counted.

It will not do to say that it must all be left to the skill of experts. Expertise is a rational process and a rational process implies expressed reasons for judgment. It will little advance the public interest to substitute for the hodge-podge of the rule in *Smyth v. Ames*, 169 U.S. 466, an encouragement of conscious obscurity or confusion in reaching a result, on the assumption that so long as the result appears harmless its basis is irrelevant. That may be an appropriate attitude when state action is challenged as unconstitutional. Cf. *Driscoll v. Edison Co.*, 307 U.S. 104. But it is not to be assumed that it was the design of Congress to make the accommodation of the conflicting interests exposed in MR. JUSTICE JACKSON's opinion the occasion for a blind clash of forces or a partial assessment of relevant factors, either before the Commission or here.

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The objection to the Commission's action is not that the rates it granted were too low but that the range of its vision was too narrow. And since the issues before the Commission involved no less than the [**300] total public interest, the proceedings before it should not be judged by narrow conceptions of common law pleading. And so I conclude that the case should be returned to the Commission. In order to enable this Court to discharge its duty of reviewing the Commission's order, the Commission should set forth with explicitness the criteria by which it is guided [*628] in determining that rates are "just and reasonable," and it should determine the public interest that is in its keeping in the perspective of the considerations set forth by MR. JUSTICE JACKSON.

By MR. JUSTICE JACKSON:

Certainly the theory of the court below that ties rate-making to the fair-value-reproduction-cost formula should be overruled as in conflict with *Federal Power Commission v. Natural Gas Pipeline Co.*.¹ But the case should, I think, be the occasion for reconsideration of our rate-making doctrine as applied to natural gas and should be returned to the Commission, for further consideration in the light thereof.

1 315 U.S. 575.

The Commission appears to have [***359] understood the effect of the two opinions in the *Pipeline* case to be at least authority and perhaps direction to fix natural gas rates by exclusive application of the "prudent investment" rate base theory. This has no warrant in the opinion of the Chief Justice for the Court, however, which released the Commission from subservience to "any single formula or combination of formulas" provided its order, "viewed in its entirety, produces no arbitrary result." 315 U.S. at 586. The minority opinion I understood to advocate the "prudent investment" theory as a sufficient guide in a natural gas case. The view was expressed in the court below that since this opinion was not expressly controverted it must have been approved.² I disclaim this imputed [*629] approval with some particularity, because I attach importance at the very beginning of federal regulation of the natural gas industry to approaching it as the performance of economic functions, not as the performance of legalistic rituals.

2 Judge Dobie, dissenting below, pointed out that the majority opinion in the *Pipeline* case "contains no express discussion of the Prudent Investment Theory" and that the concurring opinion contained a clear one, and said, "It is difficult for me to believe that the majority of the Supreme Court, believing otherwise, would leave such a statement unchallenged." The fact that two other Justices had as matter of record in our books long opposed the reproduction cost theory of rate bases and had commented favorably on the prudent investment theory may have influenced that conclusion. See opinion of Mr. Justice Frankfurter in *Driscoll v. Edison Light & Power Co.*, 307 U.S. 104, 122, and my brief as Solicitor General in that case. It should be noted, however, that these statements were made, not in a natural gas case, but in an electric power case -- a very important distinction, as I shall try to make plain.

I.

Solutions of these cases must consider eccentricities of the industry which gives rise to them and also to the Act of Congress by which they are governed.

The heart of this problem is the elusive, exhaustible, and irreplaceable nature of natural gas itself. Given sufficient money, we can produce any desired amount of railroad, bus, or steamship transportation, or communications facilities, or capacity for generation of electric energy, or for the manufacture of gas of a kind. In the service of such utilities one customer has little concern with the amount taken by another, one's waste will not deprive another, a volume of service can be created equal to demand, and today's demands will not exhaust or lessen capacity to serve tomorrow. But the wealth of Midas and the wit of man cannot produce or reproduce a natural gas field. We cannot even reproduce the gas,

320 U.S. 591, *629; 64 S. Ct. 281, **300;
88 L. Ed. 333, ***359; 1944 U.S. LEXIS 1204

for our manufactured product has only about half the heating value per unit of nature's own.³

³ Natural gas from the Appalachian field averages about 1,050 to 1,150 B. T. U. content, while by-product manufactured gas is about 530 to 540. Moody's Manual of Public Utilities (1943) 1,350; Youngberg, Natural Gas (1930) 7.

[**301] Natural gas in some quantity is produced in twenty-four states. It is consumed in only thirty-five states, and is [*630] available only to about 7,600,000 consumers.⁴ Its availability has been more localized than that of any other utility service because it has depended more on the caprice of nature.

⁴ Sen. Rep. No. 1162, 75th Cong., 1st Sess., 2.

The supply of the Hope Company is drawn from that old and rich and vanishing field that flanks the Appalachian mountains. Its center of production is Pennsylvania and West Virginia, with a fringe of lesser production in New York, Ohio, Kentucky, Tennessee, and the north end of Alabama. Oil was discovered in commercial quantities at [***360] a depth of only 69 1/2 feet near Titusville, Pennsylvania, in 1859. Its value then was about \$ 16 per barrel.⁵ The oil branch of the petroleum industry went forward at once, and with unprecedented speed. The area productive of oil and gas was roughed out by the drilling of over 19,000 "wildcat" wells, estimated to have cost over \$ 222,000,000. Of these, over 18,000, or 94.9 per cent, were "dry holes." About five per cent, or 990 wells, made discoveries of commercial importance, 767 of them resulting chiefly in oil and 223 in gas only.⁶ Prospecting for many years was a search for oil, and to strike gas was a misfortune. Waste during this period and even later is appalling. Gas was regarded as having no commercial value until about 1882, in which year the total yield was valued only at about \$ 75,000.⁷ Since then, contrary to oil, which has become cheaper, gas in this field has pretty steadily advanced in price.

⁵ Arnold and Kemnitzer, Petroleum in the United States and Possessions (1931) 78.

⁶ *Id.* at 62-63.

⁷ *Id.*, at 61.

While for many years natural gas had been distributed on a small scale for lighting,⁸ its acceptance was slow, [*631] facilities for its utilization were primitive, and not until 1885 did it take on the appearance of a substantial industry.⁹ Soon monopoly of production or markets developed.¹⁰ To get gas from the mountain country, where it was largely found, to centers of population, where it was in demand, required very large investment. By ownership of such facilities a few corporate systems, each including several companies, controlled access to markets. Their purchases became the dominating factor in giving a market value to gas produced by many small operators. Hope is the market for over 300 such operators. By 1928 natural gas in the Appalachian field commanded an average price of 21.1 cents per m. c. f. at points of production and was bringing 45.7 cents at points of consumption.¹¹ The companies which controlled markets, however, did not rely on gas purchases alone. They acquired and held in fee or leasehold great acreage in territory proved by "wildcat" drilling. These large marketing system companies as well as many small independent owners and operators have carried on the commercial development of proved territory. The development risks appear from the estimate that up to 1928, 312,318 proved area wells had been sunk in the Appalachian field of which 48,962, or 15.7 per cent, failed to produce oil or gas in commercial quantity.¹²

320 U.S. 591, *631; 64 S. Ct. 281, **301;
88 L. Ed. 333, ***360; 1944 U.S. LEXIS 1204

8 At Fredonia, New York, in 1821, natural gas was conveyed from a shallow well to some thirty people. The lighthouse at Barcelona Harbor, near what is now Westfield, New York, was at about that time and for many years afterward lighted by gas that issued from a crevice. Report on Utility Corporations by Federal Trade Commission, Sen. Doc. 92, Pt. 84-A, 70th Cong., 1st Sess., 8-9.

9 In that year Pennsylvania enacted "An Act to provide for the incorporation and regulation of natural gas companies." Penn. Laws 1885, No. 32.

10 See Steptoe and Hoffheimer's Memorandum for Governor Cornwell of West Virginia (1917) 25 West Virginia Law Quarterly 257; see also Report on Utility Corporations by Federal Trade Commission, Sen. Doc. No. 92, Pt. 84-A, 70th Cong., 1st Sess.

11 Arnold and Kemnitzer, Petroleum in the United States and Possessions (1931) 73.

12 *Id.* at 63.

[*632] With the source of supply thus tapped to serve centers of large demand, like Pittsburgh, Buffalo, Cleveland, Youngstown, Akron, and other industrial communities, the distribution of natural gas fast became big business. Its advantages as a [**302] fuel and its price commended it, and the business yielded a handsome return. All was merry and the goose hung high for consumers and gas companies alike until about the [***361] time of the first World War. Almost unnoticed by the consuming public, the whole Appalachian field passed its peak of production and started to decline. Pennsylvania, which to 1928 had given off about 38 per cent of the natural gas from this field, had its peak in 1905; Ohio, which had produced 14 per cent, had its peak in 1915; and West Virginia, greatest producer of all, with 45 per cent to its credit, reached its peak in 1917.¹³

13 *Id.* at 64.

Western New York and Eastern Ohio, on the fringe of the field, had some production but relied heavily on imports from Pennsylvania and West Virginia. Pennsylvania, a producing and exporting state, was a heavy consumer and supplemented her production with imports from West Virginia. West Virginia was a consuming state, but the lion's share of her production was exported. Thus the interest of the states in the North Appalachian supply was in conflict.

Competition among localities to share in the failing supply and the helplessness of state and local authorities in the presence of state lines and corporate complexities is a part of the background of federal intervention in the industry.¹⁴ West Virginia took the boldest measure. It legislated a priority in its entire production in favor of its own inhabitants. That was frustrated by an injunction [*633] from this Court.¹⁵ Throughout the region clashes in the courts and conflicting decisions evidenced public anxiety and confusion. It was held that the New York Public Service Commission did not have power to classify consumers and restrict their use of gas.¹⁶ That Commission held that a company could not abandon a part of its territory and still serve the rest.¹⁷ Some courts admonished the companies to take action to protect consumers.¹⁸ Several courts held that companies, regardless of failing supply, must continue to take on customers, but such compulsory additions were finally held to be within the Public Service Commission's discretion.¹⁹ There were attempts to throw up franchises and quit the service, and municipalities resorted to the courts with conflicting results.²⁰ Public service commissions of consuming states were handicapped, for they had no control of the supply.²¹

14 See Report on Utility Corporations by Federal Trade Commission, Sen. Doc. No. 92, Pt. 84-A, 70th Cong., 1st Sess.

15 *Pennsylvania v. West Virginia*, 262 U.S. 553. For conditions there which provoked this legislation, see 25 West Virginia Law Quarterly 257.

16 *People ex rel. Pavilion Gas Co. v. Public Service Commission*, 188 App. Div. 36, 176 N. Y. S. 163.

320 U.S. 591, *633; 64 S. Ct. 281, **302;
88 L. Ed. 333, ***361; 1944 U.S. LEXIS 1204

17 *Village of Falconer v. Pennsylvania Gas Co.*, 17 State Department Reports (N. Y.) 407.

18 See, for example, *Public Service Commission v. Iroquois Natural Gas Co.*, 108 Misc. 696, 178 N. Y. S. 24; *Park Abbott Realty Co. v. Iroquois Gas Co.*, 102 Misc. 266, 168 N. Y. S. 673; *Public Service Commission v. Iroquois Natural Gas Co.*, 189 App. Div. 545, 179 N. Y. S. 230.

19 *People ex rel. Pennsylvania Gas Co. v. Public Service Commission*, 196 App. Div. 514, 189 N. Y. S. 478.

20 *East Ohio Gas Co. v. Akron*, 81 Ohio St. 33, 90 N. E. 40; *Newcomerstown v. Consolidated Gas Co.*, 100 Ohio St. 494, 127 N. E. 414; *Gress v. Village of Ft. Loramie*, 100 Ohio St. 35, 125 N. E. 112; *Jamestown v. Pennsylvania Gas Co.*, 263 F. 437, 264 F. 1009. See also *United Fuel Gas Co. v. Railroad Commission*, 278 U.S. 300, 308.

21 The New York Public Service Commission said: "While the transportation of natural gas through pipe lines from one state to another state is interstate commerce . . . , Congress has not taken over the regulation of that particular industry. Indeed, it has expressly excepted it from the operation of the Interstate Commerce Commissions Law (Interstate Commerce Commissions Law, section 1). It is quite clear, therefore, that this Commission can not require a Pennsylvania corporation producing gas in Pennsylvania to transport it and deliver it in the State of New York, and that the Interstate Commerce Commission is likewise powerless. If there exists such a power, and it seems that there does, it is a power vested in Congress and by it not yet exercised. There is no available source of supply for the Crystal City Company at present except through purchasing from the Potter Gas Company. It is possible that this Commission might fix a price at which the Potter Gas Company should sell if it sold at all, but as the Commission can not require it to supply gas in the State of New York, the exercise of such a power to fix the price, if such power exists, would merely say, sell at this price or keep out of the State." *Lane v. Crystal City Gas Co.*, 8 New York Public Service Comm. Reports, Second District, 210, 212.

[*634] Shortages [**303] during World War I occasioned the first intervention in [***362] the natural gas industry by the Federal Government. Under Proclamation of President Wilson the United States Fuel Administrator took control, stopped extensions, classified consumers and established a priority for domestic over industrial use.²² After the war federal control was abandoned. Some cities once served with natural gas became dependent upon a mixed gas of reduced heating value and relatively higher price.²³

22 Proclamation by the President of September 16, 1918; Rules and Regulations of H. A. Garfield, Fuel Administrator, September 24, 1918.

23 For example, the Iroquois Gas Corporation which formerly served Buffalo, New York, with natural gas ranging from 1050 to 1150 b. t. u. per cu. ft., now mixes a by-product gas of between 530 and 540 b. t. u. in proportions to provide a mixed gas of about 900 b. t. u. per cu. ft. For space heating or water heating its charges range from 65 cents for the first 10 m. c. f. per month to 55 cents for all above 25 m. c. f. per month. Moody's Manual of Public Utilities (1943) 1350.

Utilization of natural gas of highest social as well as economic return is domestic use for cooking and water [*635] heating, followed closely by use for space heating in homes. This is the true public utility aspect of the enterprise, and its preservation should be the first concern of regulation. Gas does the family cooking cheaper than any other fuel.²⁴ But its advantages do not end with dollars and cents cost. It is delivered without interruption at the meter as needed and is paid for after it is used. No money is tied up in a supply, and no space is used for storage. It requires no handling, creates no dust, and leaves no ash. It responds to thermostatic control. It ignites easily and immediately develops its maximum heating capacity. These incidental advantages make domestic life more liveable.

24 The United States Fuel Administration made the following cooking value comparisons, based on tests made in the Department of Home Economics of Ohio State University:

Natural gas at 1.12 per M. is equivalent to coal at \$ 6.50 per ton.

Natural gas at 2.00 per M. is equivalent to gasoline at 27 cents per gal.

Natural gas at 2.20 per M. is equivalent to electricity at 3 cents per k. w. h.

320 U.S. 591, *635; 64 S. Ct. 281, **303;
88 L. Ed. 333, ***362; 1944 U.S. LEXIS 1204

Natural gas at 2.40 per M. is equivalent to coal oil at 15 cents per gal.

Use and Conservation of Natural Gas, issued by U.S. Fuel Administration (1918) 5.

Industrial use is induced less by these qualities than by low cost in competition with other fuels. Of the gas exported from West Virginia by the Hope Company a very substantial part is used by industries. This wholesale use speeds exhaustion of supply and displaces other fuels. Coal miners and the coal industry, a large part of whose costs are wages, have complained of unfair competition from low-priced industrial gas produced with relatively little labor cost.²⁵

²⁵ See Brief on Behalf of Legislation Imposing an Excise Tax on Natural Gas, submitted to N. R. A. by the United Mine Workers of America and the National Coal Association.

Gas rate structures generally have favored industrial users. In 1932, in Ohio, the average yield on gas for domestic consumption was 62.1 cents per m. c. f. and on industrial, [*636] 38.7. In Pennsylvania, the figures were 62.9 against 31.7. West Virginia showed the least spread, domestic consumers paying 36.6 cents; and industrial, [***363] 27.7.²⁶ Although this spread is less than [**304] in other parts of the United States,²⁷ it can hardly be said to be self-justifying. It certainly is a very great factor in hastening decline of the natural gas supply.

²⁶ Brief of National Gas Association and United Mine Workers, *supra* note 26, pp. 35, 36, compiled from Bureau of Mines Reports.

²⁷ From the source quoted in the preceding note the spread elsewhere is shown to be:

| State | Industrial | Domestic |
|-----------|------------|----------|
| Illinois | 29.2 | 1.678 |
| Louisiana | 10.4 | 59.7 |
| Oklahoma | 11.2 | 41.5 |
| Texas | 13.1 | 59.7 |
| Alabama | 17.8 | 1.227 |
| Georgia | 22.9 | 1.043 |

About the time of World War I there were occasional and short-lived efforts by some hard-pressed companies to reverse this discrimination and adopt graduated rates, giving a low rate to quantities adequate for domestic use and graduating it upward to discourage industrial use.²⁸ [*637] These rates met opposition from industrial sources, of course, and since diminished revenues from industrial sources tended to increase the domestic price, they met little popular or commission favor. The fact is that neither the gas companies nor the consumers nor local regulatory bodies can be depended upon to conserve gas. Unless federal regulation will take account of conservation, its efforts seem, as in this case, actually to constitute a new threat to the life of the Appalachian supply.

²⁸ In Corning, New York, rates were initiated by the Crystal City Gas Company as follows: 70 cents for the first 5,000 cu. ft. per month; 80 cents from 5,000 to 12,000; \$ 1.00 for all over 12,000. The Public Service Commission rejected these rates and fixed a flat rate of 58 cents per m. c. f. *Lane v. Crystal City Gas Co.*, 8 New York Public Service Comm. Reports, Second District, 210.

The Pennsylvania Gas Company (National Fuel Gas Company group) also attempted a sliding scale rate for New York consumers, net per month as follows: First 5,000 feet, 35 cents; second 5,000 feet, 45 cents; third 5,000 feet, 50 cents; all above 15,000, 55 cents. This was

320 U.S. 591, *637; 64 S. Ct. 281, **304;
88 L. Ed. 333, ***363; 1944 U.S. LEXIS 1204

eventually abandoned, however. The company's present scale in Pennsylvania appears to be reversed to the following net monthly rate: first 3 m. c. f., 75 cents; next 4 m. c. f., 60 cents; next 8 m. c. f., 55 cents; over 15 m. c. f., 50 cents. Moody's Manual of Public Utilities (1943) 1350. In New York it now serves a mixed gas.

For a study of effect of sliding scale rates in reducing consumption see 11 Proceedings of Natural Gas Association of America (1919) 287.

II.

Congress in 1938 decided upon federal regulation of the industry. It did so after an exhaustive investigation of all aspects including failing supply and competition for the use of natural gas intensified by growing scarcity.²⁹ Pipelines from the Appalachian area to markets were in the control of a handful of holding company systems.³⁰ This created a highly concentrated control of the producers' market and of the consumers' supplies. While holding companies dominated both production [***364] and distribution they segregated those activities in separate [*638] subsidiaries,³¹ the effect of which, if not the purpose, was to isolate [*305] some end of the business from the reach of any one state commission. The cost of natural gas to consumers moved steadily upwards over the years, out of proportion to prices of oil, which, except for the element of competition, is produced under somewhat comparable conditions. The public came to feel that the companies were exploiting the growing scarcity of local gas. The problems of this region had much to do with creating the demand for federal regulation.

29 See Report on Utility Corporations by Federal Trade Commission, Sen. Doc. 92, Pt. 84-A, 70th Cong., 1st Sess.

30 Four holding company systems control over 55 per cent of all natural gas transmission lines in the United States. They are Columbia Gas and Electric Corporation, Cities Service Co., Electric Bond and Share Co., and Standard Oil Co. of New Jersey. Columbia alone controls nearly 25 per cent, and fifteen companies account for over 80 per cent of the total. Report on Utility Corporations by Federal Trade Commission, Sen. Doc. 92, Pt. 84-A, 70th Cong., 1st Sess., 28.

In 1915, so it was reported to the Governor of West Virginia, 87 per cent of the total gas production of that state was under control of eight companies. Steptoe and Hoffheimer, Legislative Regulation of Natural Gas Supply in West Virginia, 17 West Virginia Law Quarterly 257, 260. Of these, three were subsidiaries of the Columbia system and others were subsidiaries of larger systems. In view of inter-system sales and interlocking interests it may be doubted whether there is much real competition among these companies.

31 This pattern with its effects on local regulatory efforts will be observed in our decisions. See *United Fuel Gas Co. v. Railroad Commission*, 278 U.S. 300; *United Fuel Gas Co. v. Public Service Commission*, 278 U.S. 322; *Dayton Power & Light Co. v. Public Utilities Commission*, 292 U.S. 290; *Columbus Gas & Fuel Co. v. Public Utilities Commission*, 292 U.S. 398, and the present case.

The Natural Gas Act declared the natural gas business to be "affected with a *public interest*," and its regulation "necessary in the *public interest*."³² Originally, and at the time this proceeding was commenced and tried, it also declared "the intention of Congress that natural gas shall be sold in interstate commerce for resale for ultimate public consumption for domestic, commercial, industrial, or any other use at the lowest possible reasonable rate *consistent with the maintenance of adequate service in the public interest*.³³" While this was later dropped, there is nothing to indicate that it was not and is not still an accurate statement of purpose of the Act. Extension or improvement of facilities may be ordered when "necessary or desirable in the public interest," abandonment of facilities may be ordered when the supply is "depleted to the extent that the continuance of service is unwarranted, or that the *present or future public convenience or necessity* [*639] permit" abandonment and certain extensions can only be made on finding of "the *present or future convenience and necessity*."³⁴ The Commission is required to take account of the ultimate use of the gas. Thus it is given power to suspend new schedules as to rates, charges, and classification of services except where the schedules are for the sale of gas "for resale for industrial use only,"³⁵ which gives the companies greater freedom to increase rates on industrial gas than on domestic gas. More particularly, the Act expressly forbids any undue preference or advantage to any person or "*any unreasonable difference in rates . . . either as between localities or as between classes of service*."³⁶ And the power of the Commission expressly includes that to determine the "just and reasonable

320 U.S. 591, *639; 64 S. Ct. 281, **305;
88 L. Ed. 333, ***364; 1944 U.S. LEXIS 1204

rate, charge, classification, rule, regulation, practice, or contract to be thereafter observed and in force." ³⁷

32 15 U. S. C. § 717 (a). (Italics supplied throughout this paragraph.)

33 § 7 (c), 52 Stat. 825.

34 15 U. S. C. § 717f.

35 *Id.*, § 717c (e).

36 *Id.*, § 717c (b).

37 *Id.*, § 717d (a).

In view of the Court's opinion that the Commission in administering the Act may ignore discrimination, it is interesting that in reporting this Bill both the Senate and the House Committees on Interstate Commerce pointed out that in 1934, on a nation-wide average the price of natural gas per m. c. f. was 74.6 cents for domestic use, 49.6 cents for commercial use, and 16.9 for industrial use.³⁸ I am not ready to think that supporters of a bill called attention to the striking fact that householders were being charged five times [***365] as much for their gas as industrial users only as a situation which the Bill would do nothing to remedy. On the other hand the Act gave to the Commission what the Court aptly describes as "broad powers of regulation."

38 Sen. Rep. No. 1162, 75th Cong., 1st Sess., 2.

[*640] III.

This proceeding was initiated by the Cities of Cleveland and Akron. They alleged that the price charged by Hope for natural gas "for resale to domestic, commercial and small industrial consumers in Cleveland and elsewhere is excessive, unjust, unreasonable, greatly in excess of the price charged by Hope to nonaffiliated companies at wholesale for resale to domestic, commercial, and small industrial consumers, and *greatly in excess of the price charged by Hope to East Ohio for resale to certain favored industrial consumers in Ohio, and therefore is further unduly discriminatory between customers and between classes of service*" (italics supplied). The company answered admitting differences in prices to affiliated and nonaffiliated companies and justifying them by differences in conditions of delivery. [**306] As to the allegation that the contract price is "greatly in excess of the price charged by Hope to East Ohio for resale to certain favored industrial consumers in Ohio," Hope did not deny a price differential, but alleged that industrial gas was not sold to "favored consumers" but was sold under contracts and schedules filed with and approved by the Public Utilities Commission of Ohio, and that certain conditions of delivery made it not "unduly discriminatory."

The record shows that in 1940 Hope delivered for industrial consumption 36,523,792 m. c. f. and for domestic and commercial consumption, 50,343,652 m. c. f. I find no separate figure for domestic consumption. It served 43,767 domestic consumers directly, 511,521 through the East Ohio Gas Company, and 154,043 through the Peoples Natural Gas Company, both affiliates owned by the same parent. Its special contracts for industrial consumption, so far as appear, are confined to about a dozen big industries.

[*641] Hope is responsible for such discrimination as exists in favor of these few industrial consumers. It controls both the resale price and use of industrial gas by virtue of the very interstate sales contracts over which the Commission is exercising its jurisdiction.

320 U.S. 591, *641; 64 S. Ct. 281, **306;
88 L. Ed. 333, ***365; 1944 U.S. LEXIS 1204

Hope's contract with East Ohio Company is an example. Hope agrees to deliver, and the Ohio Company to take, "(a) all natural gas requisite for the supply of the domestic consumers of the Ohio Company; (b) such amounts of natural gas as may be requisite to fulfill contracts made with the consent and approval of the Hope Company by the Ohio Company, or companies which it supplies with natural gas, for the sale of gas upon special terms and conditions for manufacturing purposes." The Ohio Company is required to read domestic customers' meters once a month and meters of industrial customers daily and to furnish all meter readings to Hope. The Hope Company is to have access to meters of all consumers and to all of the Ohio Company's accounts. The domestic consumers of the Ohio Company are to be fully supplied in preference to consumers purchasing for manufacturing purposes and "Hope Company can be required to supply gas to be used for manufacturing purposes only where the same is sold under special contracts which have first been submitted to and approved in writing by the Hope Company and which expressly provide that natural gas will be supplied thereunder only in so far as the same is not necessary to meet the requirements of domestic consumers supplied through pipe lines of the Ohio Company." This basic contract was supplemented from time to time, chiefly as to price. The last amendment was in a letter from Hope to East Ohio in 1937. It contained a special discount on industrial gas and a schedule of special [***366] industrial contracts, Hope reserving the right to make eliminations therefrom and agreeing that others might be added from time to [*642] time with its approval in writing. It said, "It is believed that the price concessions contained in this letter, *while not based on our costs*, are, under certain conditions, to our mutual advantage in maintaining and building up the volumes of gas sold by us [italics supplied]."³⁹

³⁹ The list of East Ohio Gas Company's special industrial contracts thus expressly under Hope's control and their demands are as follows:

| Customer | Ordinary Daily Requirements. | |
|----------------------------------|------------------------------|---------|
| Republic Steel Corporation | 15,000,000 | cu. ft. |
| Otis Steel Company | 10,000,000 | |
| Timken Roller Bearing Co | 7,500,000 | |
| Youngstown Sheet & Tube Co | 7,000,000 | |
| U.S. Steel Corp. -- Subsidiaries | 6,500,000 | |
| General Electric Company | 2,500,000 | |
| Pittsburgh Plate Glass Co | 2,000,000 | |
| Niles Rolling Mill Company | 1,500,000 | |
| Chase Brass & Copper Company | 700,000 | |
| U.S. Aluminum Company | 400,000 | |
| Mahoning Valley Steel Company | 400,000 | |
| Babcock & Wilcox Company | 400,000 | |
| Canton Stamping & Enameling Co | 350,000 | |

[**307] The Commission took no note of the charges of discrimination and made no disposition of the issue tendered on this point. It ordered a flat reduction in the price per m. c. f. of all gas delivered by Hope in interstate commerce. It made no limitation, condition, or provision as to what classes of consumers should get the benefit of the reduction. While the cities have accepted and are defending the reduction, it is my view that the discrimination of which they have complained is perpetuated and increased by the order of the Commission and that it violates the Act in so doing.

The Commission's opinion aptly characterizes its entire objective by saying that "bona fide investment figures now become all-important in the regulation of rates." It should be noted that the all-importance of this theory is not the result of any instruction from Congress. When the Bill to regulate gas was first before Congress it contained [*643] the following: "In determining just and reasonable rates the Commission shall fix such rate as will allow a fair return upon the actual legitimate prudent cost of the property used and useful for the service in question." H. R. 5423, 74th Cong.,

320 U.S. 591, *643; 64 S. Ct. 281, **307;
88 L. Ed. 333, ***366; 1944 U.S. LEXIS 1204

1st Sess., Title III, § 312 (c). Congress rejected this language. See H. R. 5423, § 213 (211 (c)), and H. R. Rep. No. 1318, 74th Cong., 1st Sess., 30.

The Commission contends nevertheless that the "all important" formula for finding a rate base is that of prudent investment. But it excluded from the investment base an amount actually and admittedly invested of some \$ 17,000,000. It did so because it says that the Company recouped these expenditures from customers before the days of regulation from earnings above a fair return. But it would not apply all of such "excess earnings" to reduce the rate base as one of the Commissioners suggested. The reason for applying excess earnings to reduce the investment base roughly from \$ 69,000,000 to \$ 52,000,000 but refusing to apply them to reduce it from that to some \$ 18,000,000 is not found in a difference in the character of the earnings or in their reinvestment. The reason assigned is a difference in bookkeeping treatment many years before the Company was subject to regulation. The \$ 17,000,000, reinvested chiefly in well drilling, was treated on the books as expense. (The Commission now requires that drilling costs be carried to capital account.) The allowed rate base thus actually was determined by the Company's bookkeeping, not its investment. [***367] This attributes a significance to formal classification in account keeping that seems inconsistent with rational rate regulation.⁴⁰ Of [*644] course, the [**308] Commission would not and should not allow a rate base to be inflated by bookkeeping which had improperly capitalized expenses. I have doubts about resting public regulation upon any rule that is to be used or not depending on which side it favors.

40 To make a fetish of mere accounting is to shield from examination the deeper causes, forces, movements, and conditions which should govern rates. Even as a recording of current transactions, bookkeeping is hardly an exact science. As a representation of the condition and trend of a business, it uses symbols of certainty to express values that actually are in constant flux. It may be said that in commercial or investment banking or any business extending credit success depends on knowing what not to believe in accounting. Few concerns go into bankruptcy or reorganization whose books do not show them solvent and often even profitable. If one cannot rely on accountancy accurately to disclose past or current conditions of a business, the fallacy of using it as a sole guide to future price policy ought to be apparent. However, our quest for certitude is so ardent that we pay an irrational reverence to a technique which uses symbols of certainty, even though experience again and again warns us that they are delusive. Few writers have ventured to challenge this American idolatry, but see Hamilton, Cost as a Standard for Price, 4 Law and Contemporary Problems 321, 323-25. He observes that "As the apostle would put it, accountancy is all things to all men. . . . Its purpose determines the character of a system of accounts." He analyzes the hypothetical character of accounting and says "It was no eternal mold for pecuniary verities handed down from on high. It was -- like logic, or algebra, or the device of analogy in the law -- an ingenious contrivance of the human mind to serve a limited and practical purpose." "Accountancy is far from being a pecuniary expression of all that is industrial reality. It is an instrument, highly selective in its application, in the service of the institution of money making." As to capital account he observes "In an enterprise in lusty competition with others of its kind, survival is the thing and the system of accounts has its focus in solvency. . . . Accordingly depreciation, obsolescence, and other factors which carry no immediate threat are matters of lesser concern and the capital account is likely to be regarded as a secondary phenomenon. . . . But in an enterprise, such as a public utility, where continued survival seems assured, solvency is likely to be taken for granted. . . . A persistent and ingenious attention is likely to be directed not so much to securing the upkeep of the physical property as to making it certain that capitalization fails in not one whit to give full recognition to every item that should go into the account."

[*645] The Company on the other hand, has not put its gas fields into its calculations on the present-value basis, although that, it contends, is the only lawful rule for finding a rate base. To do so would result in a rate higher than it has charged or proposes as a matter of good business to charge.

The case before us demonstrates the lack of rational relationship between conventional rate-base formulas and natural gas production and the extremities to which regulating bodies are brought by the effort to rationalize them. The Commission and the Company each stands on a different theory, and neither ventures to carry its theory to logical conclusion as applied to gas fields.

IV.

This order is under judicial review not because we interpose constitutional theories between a State and the business it seeks to regulate, but because Congress put upon the federal courts a duty toward administration of a new federal regulatory Act. If we are to hold that a given rate is reasonable just because the Commission has said it was reasonable,

320 U.S. 591, *645; 64 S. Ct. 281, **308;
88 L. Ed. 333, ***367; 1944 U.S. LEXIS 1204

review becomes a costly, time-consuming pageant of no practical value to anyone. If on the other hand we are to bring judgment of our own to the task, we should for the guidance of the regulators and the [***368] regulated reveal something of the philosophy, be it legal or economic or social, which guides us. We need not be slaves to a formula but unless we can point out a rational way of reaching our conclusions they can only be accepted as resting on intuition or predilection. I must admit that I possess no instinct by which to know the "reasonable" from the "unreasonable" in prices and must seek some conscious design for decision.

The Court sustains this order as reasonable, but what makes it so or what could possibly make it otherwise, [*646] I cannot learn. It holds that: "it is the result reached not the method employed which is controlling"; "the fact that the method employed to reach that result may contain infirmities is not then important" and it is not "important to this case to determine the various permissible ways in which any rate base on which the return is computed might be arrived at." The Court does lean somewhat on considerations of capitalization and dividend history and requirements for dividends on outstanding stock. But I can give no real weight to that for it is generally and I think deservedly in discredit as any guide in rate cases.⁴¹

41 See 2 Bonbright, Valuation of Property (1937) 1112.

Our books already contain so much talk of methods of rationalizing rates that we must appear ambiguous if we announce results without our working methods. We are confronted with regulation of a unique type of enterprise which I think requires considered rejection of much conventional utility doctrine and adoption of concepts of "just and reasonable" rates and practices and of the "public interest" that will take account of the peculiarities of the business.

The Court rejects the suggestions of this opinion. It says that the Committees in reporting the bill which became the Act said it provided "for regulation along recognized and more or less standardized lines" and that there was "nothing novel in its provisions." So saying it sustains a rate calculated on a novel variation of a rate base theory which itself had at the time of enactment of the legislation been recognized only in dissenting opinions. Our difference seems to be between unconscious innovation,⁴² and the purposeful [**309] and deliberate innovation I [*647] would make to meet the necessities of regulating the industry before us.

42 Bonbright says, ". . . the vice of traditional law lies, not in its adoption of excessively rigid concepts of value and rules of valuation, but rather in its tendency to permit shifts in meaning that are inept, or else that are ill-defined because the judges that make them will not openly admit that they are doing so." *Id.*, 1170.

Hope's business has two components of quite divergent character. One, while not a conventional common-carrier undertaking, is essentially a transportation enterprise consisting of conveying gas from where it is produced to point of delivery to the buyer. This is a relatively routine operation not differing substantially from many other utility operations. The service is produced by an investment in compression and transmission facilities. Its risks are those of investing in a tested means of conveying a discovered supply of gas to a known market. A rate base calculated on the prudent investment formula would seem a reasonably satisfactory measure for fixing a return from that branch of the business whose service is roughly proportionate to the capital invested. But it has other consequences which must not be overlooked. It gives marketability and hence "value" to gas owned by the company and gives the pipeline company a large power over the marketability and hence "value" of the production of others.

The other part of the business -- to reduce to possession an adequate supply of natural gas -- is of opposite [***369] character, being more erratic and irregular and unpredictable in relation to investment than any phase of any other utility business. A thousand feet of gas captured and severed from real estate for delivery to consumers is recognized under

320 U.S. 591, *647; 64 S. Ct. 281, **309;
88 L. Ed. 333, ***369; 1944 U.S. LEXIS 1204

our law as property of much the same nature as a ton of coal, a barrel of oil, or a yard of sand. The value to be allowed for it is the real battleground between the investor and consumer. It is from this part of the business that the chief difference between the parties as to a proper rate base arises.

Is it necessary to a "reasonable" price for gas that it be anchored to a rate base of any kind? Why did courts in the first place begin valuing "rate bases" in order to "value" something else? The method came into vogue [***648**] in fixing rates for transportation service which the public obtained from common carriers. The public received none of the carriers' physical property but did make some use of it. The carriage was often a monopoly so there were no open market criteria as to reasonableness. The "value" or "cost" of what was put to use in the service by the carrier was not a remote or irrelevant consideration in making such rates. Moreover the difficulty of appraising an intangible service was thought to be simplified if it could be related to physical property which was visible and measurable and the items of which might have market value. The court hoped to reason from the known to the unknown. But gas fields turn this method topsy turvy. Gas itself is tangible, possessible, and does have a market and a price in the field. The value of the rate base is more elusive than that of gas. It consists of intangibles -- leaseholds and freeholds -- operated and unoperated -- of little use in themselves except as rights to reach and capture gas. Their value lies almost wholly in predictions of discovery, and of price of gas when captured, and bears little relation to cost of tools and supplies and labor to develop it. Gas is what Hope sells and it can be directly priced more reasonably and easily and accurately than the components of a rate base can be valued. Hence the reason for resort to a roundabout way of rate base price fixing does not exist in the case of gas in the field.

But if found, and by whatever method found, a rate base is little help in determining reasonableness of the price of gas. Appraisal of present value of these intangible rights to pursue fugitive gas depends on the value assigned to the gas when captured. The "present fair value" rate base, generally in ill repute,⁴³ is not even [****310**] urged by the gas company for valuing its fields.

43 "The attempt to regulate rates by reference to a periodic or occasional reappraisal of the properties has now been tested long enough to confirm the worst fears of its critics. Unless its place is taken by some more promising scheme of rate control, the days of private ownership under government regulation may be numbered." 2 Bonbright, *Valuation of Property* (1937) 1190.

[***649**] The prudent investment theory has relative merits in fixing rates for a utility which creates its service merely by its investment. The amount and quality of service rendered by the usual utility will, at least roughly, be measured by the amount of capital it puts into the enterprise. But it has no rational application where there is no such relationship between investment and capacity to serve. There is no such relationship between investment and amount of gas produced. Let us assume that Doe and Roe each produces in West Virginia for delivery to Cleveland the same quantity of natural gas per day. Doe, however, through luck or foresight or whatever it takes, gets his gas from investing \$ 50,000 in leases and drilling. Roe drilled poorer territory, got smaller wells, and has invested \$ 250,000. Does anybody imagine that Roe can get or ought to get for his gas five times as much as Doe because [*****370**] he has spent five times as much? The service one renders to society in the gas business is measured by what he gets out of the ground, not by what he puts into it, and there is little more relation between the investment and the results than in a game of poker.

Two-thirds of the gas Hope handles it buys from about 340 independent producers. It is obvious that the principle of rate-making applied to Hope's own gas cannot be applied, and has not been applied, to the bulk of the gas Hope delivers. It is not probable that the investment of any two of these producers will bear the same ratio to their investments. The gas, however, all goes to the same use, has the same utilization value and the same ultimate price.

To regulate such an enterprise by undiscriminatingly transplanting any body of rate doctrine conceived and [***650**] adapted to the ordinary utility business can serve the "public interest" as the Natural Gas Act requires, if at all, only by accident. Mr. Justice Brandeis, the pioneer juristic advocate of the prudent investment theory for manmade utilities,

320 U.S. 591, *650; 64 S. Ct. 281, **310;
88 L. Ed. 333, ***370; 1944 U.S. LEXIS 1204

never, so far as I am able to discover, proposed its application to a natural gas case. On the other hand, dissenting in *Pennsylvania v. West Virginia*, he reviewed the problems of gas supply and said, "In no other field of public service regulation is the controlling body confronted with factors so baffling as in the natural gas industry; and in none is continuous supervision and control required in so high a degree." 262 U.S. 553, 621. If natural gas rates are intelligently to be regulated we must fit our legal principles to the economy of the industry and not try to fit the industry to our books.

As our decisions stand the Commission was justified in believing that it was required to proceed by the rate base method even as to gas in the field. For this reason the Court may not merely wash its hands of the method and rationale of rate making. The fact is that this Court, with no discussion of its fitness, simply transferred the rate base method to the natural gas industry. It happened in *Newark Natural Gas & Fuel Co. v. City of Newark, Ohio*, 242 U.S. 405 (1917), in which the company wanted 25 cents per m. c. f., and under the Fourteenth Amendment challenged the reduction to 18 cents by ordinance. This Court sustained the reduction because the court below "gave careful consideration to the questions of the value of the property at the time of the inquiry," and whether the rate "would be sufficient to provide a fair return on the value of the property." The Court said this method was "based upon principles thoroughly established by repeated decisions of this court," citing many cases, not one of which involved natural gas or a comparable wasting natural resource. Then came issues as to state power to [*651] regulate as affected by the commerce clause. *Public Utilities Commission v. Landon*, 249 U.S. 236 (1919); *Pennsylvania Gas Co. v. Public Service Commission*, 252 U.S. 23 (1920). These questions settled, the Court again was called upon in natural gas cases to consider state rate-making claimed to be invalid under the Fourteenth Amendment. *United Fuel Gas Co. v. Railroad Commission of Kentucky*, 278 U.S. 300 (1929); *United Fuel Gas Co. v. Public Service Commission of West Virginia*, 278 U.S. 322 (1929). Then, as now, the differences were "due [**311] chiefly to the difference in value ascribed by each to the gas rights and leaseholds." 278 U.S. 300, 311. No one seems to have questioned that the rate base method must be pursued and the controversy was as to what rate base must be used. Later the "value" of gas in the field was [***371] questioned in determining the amount a regulated company should be allowed to pay an affiliate therefor -- a state determination also reviewed under the Fourteenth Amendment. *Dayton Power & Light Co. v. Public Utilities Commission of Ohio*, 292 U.S. 290 (1934); *Columbus Gas & Fuel Co. v. Public Utilities Commission of Ohio*, 292 U.S. 398 (1934). In both cases, one of which sustained and one of which struck down a fixed rate, the Court assumed the rate base method as the legal way of testing reasonableness of natural gas prices fixed by public authority, without examining its real relevancy to the inquiry.

Under the weight of such precedents we cannot expect the Commission to initiate economically intelligent methods of fixing gas prices. But the Court now faces a new plan of federal regulation based on the power to fix the price at which gas shall be allowed to move in interstate commerce. I should now consider whether these rules devised under the Fourteenth Amendment are the exclusive tests of a just and reasonable rate under the federal statute, inviting reargument directed to that point [*652] if necessary. As I see it now I would be prepared to hold that these rules do not apply to a natural gas case arising under the Natural Gas Act.

Such a holding would leave the Commission to fix the price of gas in the field as one would fix maximum prices of oil or milk or coal, or any other commodity. Such a price is not calculated to produce a fair return on the synthetic value of a rate base of any individual producer, and would not undertake to assure a fair return to any producer. The emphasis would shift from the producer to the product, which would be regulated with an eye to average or typical producing conditions in the field.

Such a price fixing process on economic lines would offer little temptation to the judiciary to become back seat drivers of the price fixing machine. The unfortunate effect of judicial intervention in this field is to divert the attention of those engaged in the process from what is economically wise to what is legally permissible. It is probable that price reductions would reach economically unwise and self-defeating limits before they would reach constitutional ones. Any constitutional problems growing out of price fixing are quite different than those that have heretofore been considered to inhere in rate making. A producer would have difficulty showing the invalidity of such a fixed price so long as he voluntarily continued to sell his product in interstate commerce. Should he withdraw and other authority be invoked to

320 U.S. 591, *652; 64 S. Ct. 281, **311;
88 L. Ed. 333, ***371; 1944 U.S. LEXIS 1204

compel him to part with his property, a different problem would be presented.

Allowance in a rate to compensate for gas removed from gas lands, whether fixed as of point of production or as of point of delivery, probably best can be measured by a functional test applied to the whole industry. For good or ill we depend upon private enterprise to exploit these natural resources for public consumption. The function which an allowance for gas in the field should perform [***653**] for society in such circumstances is to be enough and no more than enough to induce private enterprise completely and efficiently to utilize gas resources, to acquire for public service any available gas or gas rights and to deliver gas at a rate and for uses which will be in the future as well as in the present public interest.

The Court fears that "if we are now to tell the Commission to fix the rates so as to discourage particular uses, we would indeed be injecting into a rate case a 'novel' doctrine . . ." With due deference I suggest that there is nothing novel in the idea that any change in price of a service or commodity reacts to encourage or discourage its use. The question is not whether such consequences [*****372**] will or will not follow; the question is whether effects must be suffered blindly or may be intelligently selected, whether price control shall have targets at which it deliberately aims or shall be handled like a gun in the hands of one who does not know it is loaded.

We should recognize "price" for what it is -- a tool, a means, an expedient. In public [****312**] hands it has much the same economic effects as in private hands. Hope knew that a concession in industrial price would tend to build up its volume of sales. It used price as an expedient to that end. The Commission makes another cut in that same price but the Court thinks we should ignore the effect that it will have on exhaustion of supply. The fact is that in natural gas regulation price must be used to reconcile the private property right society has permitted to vest in an important natural resource with the claims of society upon it -- price must draw a balance between wealth and welfare.

To carry this into techniques of inquiry is the task of the Commissioner rather than of the judge, and it certainly is no task to be solved by mere bookkeeping but requires the best economic talent available. There would doubtless be inquiry into the price gas is bringing in the [***654**] field, how far that price is established by arm's length bargaining and how far it may be influenced by agreements in restraint of trade or monopolistic influences. What must Hope really pay to get and to replace gas it delivers under this order? If it should get more or less than that for its own, how much and why? How far are such prices influenced by pipe line access to markets and if the consumers pay returns on the pipe lines how far should the increment they cause go to gas producers? East Ohio is itself a producer in Ohio.⁴⁴ What do Ohio authorities require Ohio consumers to pay for gas in the field? Perhaps these are reasons why the Federal Government should put West Virginia gas at lower or at higher rates. If so what are they? Should East Ohio be required to exploit its half million acres of unoperated reserve in Ohio before West Virginia resources shall be supplied on a devalued basis of which that State complains and for which she threatens measures of self keep? What is gas worth in terms of other fuels it displaces?

⁴⁴ East Ohio itself owns natural gas rights in 550,600 acres, 518,526 of which are reserved and 32,074 operated, by 375 wells. Moody's Manual of Public Utilities (1943) 5.

A price cannot be fixed without considering its effect on the production of gas. Is it an incentive to continue to exploit vast unoperated reserves? Is it conducive to deep drilling tests the result of which we may know only after trial? Will it induce bringing gas from afar to supplement or even to substitute for Appalachian gas?⁴⁵ Can it be had from distant fields as cheap or cheaper? If so, that competitive potentiality is certainly a relevant consideration. Wise regulation must also consider, as a private buyer would, what alternatives the producer has [***655**] if the price is not acceptable. Hope has intrastate business and domestic and industrial customers. What can it do by way of diverting its supply to intrastate sales? What can it do by way of disposing of its operated or reserve acreage to industrial concerns or other buyers? What can West Virginia do by way of conservation laws, severance or other taxation, if the regulated rate

320 U.S. 591, *655; 64 S. Ct. 281, **312;
88 L. Ed. 333, ***372; 1944 U.S. LEXIS 1204

offends? It must be borne in mind that while West Virginia was prohibited from giving her own inhabitants a priority that [***373] discriminated against interstate commerce, we have never yet held that a good faith conservation act, applicable to her own, as well as to others, is not valid. In considering alternatives, it must be noted that federal regulation is very incomplete, expressly excluding regulation of "production or gathering of natural gas," and that the only present way to get the gas seems to be to call it forth by price inducements. It is plain that there is a downward economic limit on a safe and wise price.

45 Hope has asked a certificate of convenience and necessity to lay 1,140 miles of 22-inch pipeline from Hugoton gas fields in southwest Kansas to West Virginia to carry 285 million cu. ft. of natural gas per day. The cost was estimated at \$ 51,000,000. Moody's Manual of Public Utilities (1943) 1760.

But there is nothing in the law which compels a commission to fix a price at that "value" which a company might give to its product by taking advantage of scarcity, or monopoly of supply. The very purpose of fixing maximum prices is to take away from the seller his opportunity to get all that otherwise the market would award him for his goods. This is a constitutional use of the power to fix maximum prices, *Block v. [**313] Hirsh*, 256 U.S. 135; *Marcus Brown Holding Co. v. Feldman*, 256 U.S. 170; *International Harvester Co. v. Kentucky*, 234 U.S. 216; *Highland v. Russell Car & Snow Plow Co.*, 279 U.S. 253, just as the fixing of minimum prices of goods in interstate commerce is constitutional although it takes away from the buyer the advantage in bargaining which market conditions would give him. *United States v. Darby*, 312 U.S. 100; *Mulford v. Smith*, 307 U.S. 38; *United States v. Rock Royal Cooperative*, 307 U.S. 533; *Sunshine Anthracite Coal Co. v. Adkins*, 310 U.S. 381. The Commission has power to fix [*656] a price that will be both maximum and minimum and it has the incidental right, and I think the duty, to choose the economic consequences it will promote or retard in production and also more importantly in consumption, to which I now turn.

If we assume that the reduction in company revenues is warranted we then come to the question of translating the allowed return into rates for consumers or classes of consumers. Here the Commission fixed a single rate for all gas delivered irrespective of its use despite the fact that Hope has established what amounts to two rates -- a high one for domestic use and a lower one for industrial contracts.⁴⁶ The Commission can fix two prices for interstate gas as readily as one -- a price for resale to domestic users and another for resale to industrial users. This is the pattern Hope itself has established in the very contracts over which the Commission is expressly given jurisdiction. Certainly the Act is broad enough to permit two prices to be fixed instead of one, if the concept of the "public interest" is not unduly narrowed.

46 I find little information as to the rates for industries in the record and none at all in such usual sources as Moody's Manual.

The Commission's concept of the public interest in natural gas cases which is carried today into the Court's opinion was first announced in the opinion of the minority in the *Pipeline* case. It enumerated only two "phases of the public interest: (1) the investor interest; (2) the consumer interest," which it emphasized to the exclusion of all others. 315 U.S. 575, 606. This will do well enough in dealing with railroads or utilities supplying manufactured gas, electric power, a communications service or transportation, where utilization of facilities does not impair their future usefulness. Limitation of supply, however, brings into a natural gas case another phase of the public interest that to my mind overrides both the owner [*657] and the consumer of that interest. Both producers and industrial consumers have served their [***374] immediate private interests at the expense of the long-range public interest. The public interest, of course, requires stopping unjust enrichment of the owner. But it also requires stopping unjust impoverishment of future generations. The public interest in the use by Hope's half million domestic consumers is quite a different one from the public interest in use by a baker's dozen of industries.

Prudent price fixing it seems to me must at the very threshold determine whether any part of an allowed return shall be

320 U.S. 591, *657; 64 S. Ct. 281, **313;
88 L. Ed. 333, ***374; 1944 U.S. LEXIS 1204

permitted to be realized from sales of gas for resale for industrial use. Such use does tend to level out daily and seasonal peaks of domestic demand and to some extent permits a lower charge for domestic service. But is that a wise way of making gas cheaper when, in comparison with any substitute, gas is already a cheap fuel? The interstate sales contracts provide that at times when demand is so great that there is not enough gas to go around domestic users shall first be served. Should the operation of this preference await the day of actual shortage? Since the propriety of a preference seems conceded, should it not operate to prevent the coming of a shortage as well as to mitigate its effects? Should industrial use jeopardize tomorrow's service to householders any more than today's? If, however, it is decided to cheapen domestic use by resort to industrial sales, should they be limited to the few uses [**314] for which gas has special values or extend also to those who use it only because it is cheaper than competitive fuels?⁴⁷ And how much cheaper should industrial [*658] gas sell than domestic gas, and how much advantage should it have over competitive fuels? If industrial gas is to contribute at all to lowering domestic rates, should it not be made to contribute the very maximum of which it is capable, that is, should not its price be the highest at which the desired volume of sales can be realized?

⁴⁷ The Federal Power Commission has touched upon the problem of conservation in connection with an application for a certificate permitting construction of a 1,500-mile pipeline from southern Texas to New York City and says: "The Natural Gas Act as presently drafted does not enable the Commission to treat fully the serious implications of such a problem. The question should be raised as to whether the proposed use of natural gas would not result in displacing a less valuable fuel and create hardships in the industry already supplying the market, while at the same time rapidly depleting the country's natural-gas reserves. Although, for a period of perhaps 20 years, the natural gas could be so priced as to appear to offer an apparent saving in fuel costs, this would mean simply that social costs which must eventually be paid had been ignored.

"Careful study of the entire problem may lead to the conclusion that use of natural gas should be restricted by functions rather than by areas. Thus, it is especially adapted to space and water heating in urban homes and other buildings and to the various industrial heat processes which require concentration of heat, flexibility of control, and uniformity of results. Industrial uses to which it appears particularly adapted include the treating and annealing of metals, the operation of kilns in the ceramic, cement, and lime industries, the manufacture of glass in its various forms, and use as a raw material in the chemical industry. General use of natural gas under boilers for the production of steam is, however, under most circumstances of very questionable social economy." Twentieth Annual Report of the Federal Power Commission (1940) 79.

If I were to answer I should say that the household rate should be the lowest that can be fixed under commercial conditions that will conserve the supply for that use. The lowest probable rate for that purpose is not likely to speed exhaustion much, for it still will be high enough to induce economy, and use for that purpose has more nearly reached the saturation point. On the other hand the demand for industrial gas at present rates already appears to be increasing. To lower [***375] further the industrial rate is merely further to subsidize industrial consumption and speed depletion. The impact of the flat reduction [*659] of rates ordered here admittedly will be to increase the industrial advantages of gas over competing fuels and to increase its use. I think this is not, and there is no finding by the Commission that it is, in the public interest.

There is no justification in this record for the present discrimination against domestic users of gas in favor of industrial users. It is one of the evils against which the Natural Gas Act was aimed by Congress and one of the evils complained of here by Cleveland and Akron. If Hope's revenues should be cut by some \$ 3,600,000 the whole reduction is owing to domestic users. If it be considered wise to raise part of Hope's revenues by industrial purpose sales, the utmost possible revenue should be raised from the least consumption of gas. If competitive relationships to other fuels will permit, the industrial price should be substantially advanced, not for the benefit of the Company, but the increased revenues from the advance should be applied to reduce domestic rates. For in my opinion the "public interest" requires that the great volume of gas now being put to uneconomic industrial use should either be saved for its more important future domestic use or the present domestic user should have the full benefit of its exchange value in reducing his present rates.

Of course the Commission's power directly to regulate does not extend to the fixing of rates at which the local company shall sell to consumers. Nor is such power required to accomplish the purpose. As already pointed out, the very

320 U.S. 591, *659; 64 S. Ct. 281, **314;
88 L. Ed. 333, ***375; 1944 U.S. LEXIS 1204

contract the Commission is altering classifies the gas according to the purposes for which it is to be resold and provides differentials between the two classifications. It would only be necessary for the Commission to order [**315] that all gas supplied under paragraph (a) of Hope's contract with the East Ohio Company shall be [*660] at a stated price fixed to give to domestic service the entire reduction herein and any further reductions that may prove possible by increasing industrial rates. It might further provide that gas delivered under paragraph (b) of the contract for industrial purposes to those industrial customers Hope has approved in writing shall be at such other figure as might be found consistent with the public interest as herein defined. It is too late in the day to contend that the authority of a regulatory commission does not extend to a consideration of public interests which it may not directly regulate and a conditioning of its orders for their protection. *Interstate Commerce Commission v. Railway Labor Executives Assn.*, 315 U.S. 373; *United States v. Lowden*, 308 U.S. 225.

Whether the Commission will assert its apparently broad statutory authorization over prices and discriminations is, of course, its own affair, not ours. It is entitled to its own notion of the "public interest" and its judgment of policy must prevail. However, where there is ground for thinking that views of this Court may have constrained the Commission to accept the rate-base method of decision and a particular single formula as "all important" for a rate base, it is appropriate to make clear the reasons why I, at least, would not be so understood. The Commission is free to face up realistically to the nature and peculiarity of the resources in its control, to foster their duration in fixing price, and to consider future interests in addition to those of investors and present consumers. If we return this case it may accept or decline the proffered freedom. This problem presents the Commission an unprecedented opportunity if it will boldly make sound economic considerations, instead of legal and accounting [***376] theories, the foundation of federal policy. I would return the case to the Commission and thereby be clearly quit of what now may appear to be some responsibility for perpetrating a short-sighted pattern of natural gas regulation.

Case Name:
Transcanada Pipelines Ltd. v. Canada (National Energy Board)

Between
Transcanada Pipelines Limited, appellant, and
The National Energy Board, Canadian Association of
Petroleum Producers, Centra Gas Manitoba Inc., Coral
Energy Canada Inc., Industrial Gas Users Association,
Mirant Canada Energy Marketing, Ltd. and Ontario
Minister of Energy, respondents

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[2004] A.C.F. no 654

2004 FCA 149

2004 CAF 149

319 N.R. 171

130 A.C.W.S. (3d) 1044

Docket A-327-03

Federal Court of Appeal
Toronto, Ontario

Rothstein, Noël and Sharlow JJ.A.

Heard: February 16, 2004.
Judgment: April 5, 2004.

(60 paras.)

Administrative law -- Judicial review and statutory appeal -- Standard of review -- Administrative powers or functions -- Discretionary powers -- Fettering of -- Commercial law -- Consumer protection -- Natural resources law -- Oil and gas -- Pipelines.

Appeal by Transcanada Pipelines from a decision of the National Energy Board rejecting its proposal to review and change the rate it was permitted to charge for natural gas. The tolls which the Board allowed Transcanada to charge its customers were designed to generate sufficient revenue to recover approved costs while at the same time fairly allocat-

ing charges to users in relation to the costs and benefits of different services. Transcanada argued that the Board erred, first, in taking customer interests into account in determining the rate of return on capital it allowed the natural gas transmission system to earn, and second, in fettering its discretion by refusing to depart from the automatic adjustment formula in establishing the rate of return on equity.

HELD: Appeal dismissed. The Board did not err in law in taking into account customer interests in the determination of the rate of return. The Board was not required to use a specific methodology, but only to ensure that all tolls were just and reasonable from the point of view of both Transcanada and its customers. The cost of service method applied provided compensation to Transcanada through tolls for its prudently incurred costs, including its cost of capital and its cost of equity capital. While the impact on customers should not be considered in determining the rate of return on equity because this component of the deemed capital structure was unaffected by the impact of tolls on customers, Transcanada did not establish that the Board took that factor into account for the equity determination. The impact on customers could be a factor in the determination of the cost of equity capital if any resulting increase in tolls was so significant that it would lead to rate shock if implemented all at once, but this did not occur here. There was no fettering of discretion by the use of the automatic adjustment formula for determining the cost of equity capital. The Board had considered Transcanada's alternative proposal, but decided the automatic adjustment formula remained valid.

Statutes, Regulations and Rules Cited:

National Energy Board Act, R.S.C. 1985, c. --7, ss. 21(1), 22, 22(2)(b)(i), 23(1), 60(1), 62.

National Energy Board Rules of Practice and Procedure, 1995, SOR/95-208, ss. 44, 44(2).

Counsel:

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The judgment of the Court was delivered by

ROTHSTEIN J.A.:-

INTRODUCTION

1 This is an appeal from a February 2003 decision of the National Energy Board (RH-R-1-2002), pursuant to leave granted by this Court under section 22 of the National Energy Board Act, R.S.C. 1985, c. --7.

2 There are two issues in the appeal. The first is whether the National Energy Board ("Board") erred in taking customer or consumer interests into account in determining the rate of return on capital it would allow the appellant's Canadian Mainline natural gas transmission system ("the Mainline") to earn. The second is whether the Board erred by fettering its discretion by refusing to depart from an automatic adjustment mechanism it had used to establish the Mainline's rate of return on equity.

3 In order to understand the issues under appeal, it is first necessary to provide some background and the procedural history leading to the February 2003 decision.

BACKGROUND

4 The National Energy Board regulates interprovincial natural gas transmission pipelines. The Mainline is considered a Group 1 pipeline by the Board. Group 1 pipelines are major pipelines which are audited by the Board on a regular basis and whose operating results are continuously monitored by the Board.

5 The tolls charged for transporting natural gas on the Mainline are regulated by the Board on a cost of service basis. That means that for a future period, referred to as a "test" year, the Board, based on the evidence before it, estimates the costs to be incurred by the Mainline. The tolls which the Board allows the Mainline to charge its customers are designed to generate sufficient revenue to recover these approved costs while at the same time fairly allocating charges to users in relation to the costs and benefits of different services. Included in the cost of service, and indeed, the largest single component of the Mainline's costs, is the Mainline's cost of capital.

6 The cost of capital to a utility is equivalent to the aggregate return on investment investors require in order to keep their capital invested in the utility and to invest new capital in the utility. That return will be made in the form of interest on debt and dividends and capital appreciation on equity. Usually, that return is expressed as the rate of return investors require on their debt or equity investments.

7 The rate of return on debt is not usually controversial. It normally consists of the weighted average interest rate for the test year on the utility's outstanding long-term debt. On the other hand, the rate of return on equity is often the subject of controversy and of much debate by expert witnesses.

8 Unlike debt, where the interest rate payable is directly observable, the rate of return on equity cannot be accurately determined in advance. There are various methods experts use to estimate the rate of return on equity required by investors. The one adopted by the Board is an Equity Risk Premium methodology whereby the Board estimates a risk-free rate based on government bond rates and adds a risk premium to account for the risk associated with equity investment in a "benchmark" pipeline.

9 Once the separate rates of return on debt and equity are established, they are consolidated into a composite rate of return on capital, based on the relative amounts of debt and equity in the utility's capital structure. In order to account for varying levels of risk between pipelines, the Board constructs for each pipeline a capital structure, i.e. the relative portions of debt and equity capital needed to finance its prudently acquired assets plus its working capital, on the basis of expert evidence. The greater the risk attributed to each pipeline, the greater the required equity component of its capital structure. That is because bond investors, who are more risk averse than equity investors, will not lend funds to an enterprise unless there is sufficient equity capital invested in the enterprise to give them confidence that they will be able to recover their investment from the assets of the enterprise in the event of default.

10 For example, if the required rate of return on debt is 5%, the required rate of return on equity is 10% and the utility's capital structure, as determined by the Board, consists of 60% debt and 40% equity, the composite rate of return on capital would be $5\% \times 0.60 + 10\% \times 0.40 = 7\%$.

11 The composite rate of return on capital is then multiplied by a rate base which consists of the Board's determination, according to its accounting regulations, of the net book value of the utility's prudently acquired assets plus its working capital. Multiplying the rate of return required by investors by this rate base gives the total dollar amount of return required by investors. The product is equivalent to the utility's estimated cost of capital for the test year. That cost is added to all other costs to get the utility's total cost of service. The total is then allocated amongst the utility's customers.

12 Even though cost of capital may be more difficult to estimate than some other costs, it is a real cost that the utility must be able to recover through its revenues. If the Board does not permit the utility to recover its cost of capital, the utility will be unable to raise new capital or engage in refinancing as it will be unable to offer investors the same rate of return as other investments of similar risk. As well, existing shareholders will insist that retained earnings not be reinvested in the utility.

13 In the long run, unless a regulated enterprise is allowed to earn its cost of capital, both debt and equity, it will be unable to expand its operations or even maintain existing ones. Eventually, it will go out of business. This will harm not only its shareholders, but also the customers it will no longer be able to service. The impact on customers and ultimately consumers will be even more significant where there is insufficient competition in the market to provide adequate alternative service.

PROCEDURAL HISTORY

14 In 1994, the Board conducted a public hearing into the cost of capital of certain Group 1 pipelines including the Mainline. The purpose of the hearing was to fix the cost of capital for those pipelines for the period commencing January 1, 1995, and to establish, if possible, an automatic mechanism to adjust the rate of return on equity in the future in order to avoid the expense of litigating annual or biennial changes to the rate of return on equity.

15 As a result of that proceeding, the Board issued reasons for decision (RH-2-94) in March 1995 fixing the Mainline's return on equity for the 1995 test year at 12.25% based on a deemed capital structure of 70% debt and 30% equity. The Board's deemed capital structure did not provide for any explicit preferred share capital. Therefore, all references to equity refer to common equity.

16 The Board also established an adjustment mechanism by which the rate of return on equity would be adjusted on January 1 in 1996 and each subsequent calendar year. This mechanism was based upon the Equity Risk Premium methodology whereby:

1. a risk free (Government of Canada) bond yield forecast would be forecasted for the forthcoming year;
2. this bond yield forecast would be deducted from the bond yield forecast of the immediately preceding year;
3. this difference would be multiplied by a factor of 0.75 to determine the adjustment to the rate of return on equity;
4. the product derived in step 3 would be added to or deducted from the rate of return on equity determined by the Board for the preceding year;
5. the sum resulting from step 4 would be rounded to the nearest 25 basis points (1/100th of a percent).

17 The Mainline's rate of return on equity was adjusted according to this formula in 1996 and subsequent years, although in 1997, the Board abandoned the rounding adjustment, i.e. step 5 above.

18 By 2001, the appellant had concluded that application of the formula was understating its required rate of return on capital. Therefore, the appellant applied, pursuant to subsection 21(1) of the National Energy Board Act, for "review and variance of the [1995 decision] to allow for the determination of a fair return for TransCanada for the years 2001 and 2002." Subsection 21(1) provides:

21. (1) Subject to subsection (2), the Board may review, vary or rescind any decision or order made by it or rehear any application before deciding it.

* * *

21. (1) Sous réserve du paragraphe (2), l'Office peut réviser, annuler ou modifier ses ordonnances ou décisions, ou procéder à une nouvelle audition avant de statuer sur une demande.

19 The appellant submitted that the Board should approve a new methodology for determining the Mainline's cost of capital -- the After-Tax Weighted-Average Cost of Capital (ATWACC) methodology. Alternatively, if the AT-WACC methodology was not accepted, the appellant submitted that the required rate of return on equity for the Mainline should be 12.5% for 2001 and 2002 and that based on its risk, the deemed equity component of the Mainline's capital structure should be increased to 40%.

20 As a result of the appellant's submissions, the Board conducted a hearing in February, March and April 2002. The issues at the hearing were:

1. Is the Rate of Return on Common Equity (ROE) formula, established by the Board in its RH-2-94 Decision, still appropriate for determining TransCanada's ROE?
2. Is the After Tax Weighted-Average Cost of Capital (ATWACC) methodology an appropriate regulatory approach to determining cost of capital?
3. In the event the Board decides to adopt the ATWACC methodology, what is the appropriate ATWACC for TransCanada?
4. In the event the Board declines to adopt the ATWACC methodology and it is determined that the ROE formula is no longer suitable:
 - a) What would be an appropriate methodology for determining return on capital and capital structure for TransCanada?
 - b) In applying the above-determined methodology, what would be an appropriate return on capital and capital structure for TransCanada?

5. What is the appropriate effective date for changes to TransCanada's cost of capital? (RH-4-2001 at 4).

21 By reasons for decision (RH-4-2001) dated June 2002, the Board:

1. rejected the appellant's ATWACC proposal;
2. determined that the rate of return on equity for the Mainline should continue to be based on the adjustment formula established in its 1995 decision; and
3. increased the deemed equity component of the Mainline's capital structure from 30% to 33% to account for increased business risk.

22 By application to the Board dated September 16, 2002, the appellant applied for a review and variance of the 2002 decision. This application was also made pursuant to subsection 21(1).

23 Section 44 of the National Energy Board Rules of Practice and Procedure, 1995, SOR/95-208 sets out the requirements for a review application. Subsection 44(2) provides:

44 (2) An application for review or rehearing shall contain

...

(b) the grounds that the applicant considers sufficient, in the case of an application for review, to raise a doubt as to the correctness of the decision or order ... including

(i) any error of law or of jurisdiction,

...

* * *

(2) La demande de révision ou de nouvelle audition contient les éléments suivants :

...

b) les motifs que le demandeur juge suffisants pour mettre en doute le bien-fondé de la décision ou de l'ordonnance, s'il s'agit d'une demande de révision, ... notamment :

(i) une erreur de droit ou de compétence,

...

24 In its decision on the review & variance application (RH-R-1-2002), dated February 2003, the Board found that the appellant had not raised a doubt as to the correctness of its 2002 decision and dismissed the application for review and variance.

25 The appellant was granted leave to appeal the Board's 2003 decision to this Court.

ANALYSIS

1. Standard of Review and Approach to the Decision BeingAppealed

26 In view of my conclusion that the appeal should be dismissed, it is not necessary to conduct an extensive standard of review analysis. Even on the most intrusive standard of review (correctness), it has not been demonstrated that the Board erred in law.

27 There is also a question of the extent to which the Court should consider the Board's 2002 decision, which itself was not appealed. Normally, the Court is to restrict itself to a consideration of the decision under appeal. However, when the question is whether the Board erred or came to an unreasonable or patently unreasonable result in finding in its 2003 decision that the appellant had not raised a doubt as to the correctness of the prior 2002 decision, it is necessary

to have regard, at least to some extent, to that prior decision. Rather than becoming bogged down into the intricacies of the scope of the Court's review, I am satisfied, even on a unrestricted consideration of both the 2002 and 2003 decisions, that the Board made no error of law in either case.

2. Did the Board err in considering customer or consumer interests in determining the Mainline's rate of return on capital?

28 As a preliminary point, the appellant drew a distinction between its customers and the ultimate consumers. For purposes of this decision, such a distinction is immaterial. The appellant's position is that the Mainline's return on capital should be determined solely from the perspective of the Mainline, without considering other interests, whether they be direct customers or ultimate consumers.

- a) The Board is not required to adopt any specific methodology in determining tolls.

29 The National Energy Board Act contains no provisions or directions which require the Board to determine a pipeline's rate of return on capital. The Act only requires that "all tolls be just and reasonable." Subsections 60(1) and section 62 provide:

60. (1) A company shall not charge any tolls except tolls that are
 - (a) specified in a tariff that has been filed with the Board and is in effect; or
 - (b) approved by an order of the Board.
62. All tolls shall be just and reasonable, and shall always, under substantially similar circumstances and conditions with respect to all traffic of the same description carried over the same route, be charged equally to all persons at the same rate.

* * *

60. (1) Les seuls droits qu'une compagnie peut imposer sont ceux qui sont :
 - a) soit spécifiés dans un tarif produit auprès de l'Office et en vigueur;
 - b) soit approuvés par ordonnance de l'Office.
62. Tous les droits doivent être justes et raisonnables et, dans des circonstances et conditions essentiellement similaires, être exigés de tous, au même taux, pour tous les transports de même nature sur le même parcours.

30 The authority of the Board to determine just and reasonable tolls is not limited by any statutory directions. The broad authority of the Board was well articulated by Thurlow C.J. in British Columbia Hydro and Power Authority v. West Coast Transmission Company Ltd. et al., [1981] 2 F.C. 646 at 655-56 (C.A.):

There are no like provisions in part IV of the National Energy Board Act. Under it, tolls are to be just and reasonable and may be charged only as specified in a tariff that has been filed with the Board and is in effect. The Board is given authority in the broadest of terms to make orders with respect to all matters relating to them. Plainly, the Board has authority to make orders designed to ensure that the tolls to be charged by a pipeline company will be just and reasonable. But its power in that respect is not trammelled or fettered by statutory rules or directions as to how that function is to be carried out or how the purpose is to be achieved. In particular, there are no statutory directions that, in considering whether tolls that a pipeline company propose to charge are just and reasonable, the Board must adopt any particular accounting approach or device or that it must do so by determining cost of service and a rate base and fixing a fair return thereon.

31 The Board has adopted a cost of service method for determining the Mainline's tolls. Before this Court, counsel for a number of the respondents suggested different methodologies for determining just and reasonable tolls that would be open to the Board, such as:

1. tolls based on agreements between pipelines and shippers;

2. tolls based on charges of other pipelines;
3. use of base year tolls adjusted for inflation;
4. tolls based on mechanisms to encourage utilities towards greater efficiency.

As no particular methodology is required by the National Energy Board Act, the Board could have adopted a different methodology for determining just and reasonable tolls for the Mainline.

- b) Having adopted a cost of service methodology, the costs determined by the Board must be just and reasonable to both the Mainline and its users.

32 In the case of the Mainline, the Board has adopted a cost of service methodology whereby the Mainline is to be compensated through tolls for its prudently incurred costs, including its cost of capital, and in particular, its cost of equity capital. Once it did so, it had to faithfully determine the Mainline's costs based on the evidence and its own sound judgment.

33 Cost of equity for a future year cannot be directly measured and therefore must be based on estimates. The Board must choose an estimate that allows the Mainline to earn what has been termed a "fair return." In *Northwestern Utilities Ltd. v. Edmonton (City)*, [1929] S.C.R. 186 at 192-93, the Supreme Court defined a fair return in the following terms:

The duty of the Board was to fix fair and reasonable rates; rates which, under the circumstances, would be fair to the consumer on the one hand, and which, on the other hand, would secure to the company a fair return for the capital invested. By a fair return is meant that the company will be allowed as large a return on the capital invested in its enterprise (which will be net to the company) as it would receive if it were investing the same amount in other securities possessing an attractiveness, stability and certainty equal to that of the company's enterprise.

Tolls which reflect a fair return on capital will be just and reasonable to both the Mainline and its users.

34 To put the matter another way, when the cost of service methodology is used to determine just and reasonable tolls, if the Board does not permit the Mainline to recover its costs because it has understated the Mainline's cost of equity capital, the Mainline will be unable to earn a fair return on equity. The tolls will therefore not be just and reasonable from the Mainline's point of view. On the other hand, the tolls must also be just and reasonable from the point of view of the Mainline's customers and the ultimate consumers who rely on service from the Mainline. Therefore, customers and consumers have an interest in ensuring that the Mainline's costs are not overstated. As respondents' counsel pointed out, there are numerous costing issues that may be subject to challenge. Questions may arise about, among other things, the allocation of costs between the Mainline and other divisions of the appellant; whether costs have been, or are being, prudently incurred; and whether the Mainline's compensation plans are reasonable. And, specific to this appeal, customers and consumers have an interest in ensuring that the Mainline's cost of equity is not overstated.

- c) The Board did not improperly consider the impact on customers or consumers of increasing tolls to reflect the appellant's costs.

35 In oral argument, the appellant conceded that it does not object to its customers having input into the Board's cost determinations and in particular, its cost of capital determination, provided the issues in dispute are restricted to the costs of the Mainline. However, the appellant does object to the Board taking the impact of tolls on customers and consumers into account in determining the Mainline's cost of equity capital. The appellant says that the required rate of return on equity must be determined solely on the basis of the Mainline's cost of equity capital. The impact of any resulting toll increases on customers or consumers is an irrelevant consideration in that determination. The appellant does concede that when the final tolls are being fixed, the impact on the customers and consumers may be relevant, but insists that it is irrelevant when determining the required return on equity.

36 I think that this argument is sound and in keeping with the decision of the Supreme Court in *Northwestern Utilities*. The cost of equity capital does not change because allowing the Mainline to recover it would cause an increase in tolls. Under the Board's Equity Risk Premium methodology, the cost of equity capital is driven by the Board's estimate of the risk-free interest rate and the degree of risk investors perceive in the "benchmark" pipeline. The higher the risk, the higher their required rate of return. The degree of risk specific to the Mainline is accounted for by adjustments to its deemed capital structure. Accordingly, the cost to the Mainline of providing that rate of return on the equity component of its deemed capital structure is unaffected by the impact of tolls on customers or consumers.

37 The appellant has not demonstrated that the Board took the impact on customers or consumers into account in making its determination of the Mainline's required rate of return on equity.

38 It is true that in its 2002 decision, the Board did state:

In respect of the appropriate balance of customer and investor interests, the Board notes that customer interest in rate of return matters relates most directly to the impact the approved return will have on tolls. The Board is of the view that the impact of the rate of return on tolls is a relevant factor in the determination of a fair return (RH-4-2001 at 12).

39 The appellant says it cannot tell if the Board took the impact on customers or consumers into account in making its determination of the Mainline's required rate of return on equity. There is certainly no indication in its 2002 reasons that the Board adjusted its estimate of the required rate of return on equity based upon the impact it would have on tolls. In fact, the Board simply applied the automatic adjustment formula adopted in its 1995 decision. That formula does not take into account the impact of tolls on customers or consumers.

40 It is also true that, in relation to an adjustment the Board made in the Mainline's deemed capital structure in its 2002 decision, the Board did state:

In light of the above, the Board is of the view that it would be appropriate to increase the Mainline's deemed common equity ratio from 30% to 33%. The Board notes that this increase will raise the Mainline's annual cost of service and tolls by approximately 2%. The Board has determined that the toll increase is warranted by the prospective business risk facing the Mainline and that it will not impose an undue burden on shippers (RH-4-2001 at 59).

41 As I understand the Board's reasons, in view of the Mainline's increased business risk, the equity component of its deemed capital structure was increased from 30% to 33%. Because the required rate of return on equity was greater than the required rate of return on debt, this increased the overall estimate of the Mainline's required rate of return on capital, resulting in a 2% increase in tolls.

42 While the Board observed that the increase would not be an undue burden on shippers, there is no suggestion that the increase in the equity component of the Mainline's deemed capital structure was in any way suppressed by considerations of its impact on customers or consumers. Nor, as I have said, is there any indication that the Board determined a required rate of return on equity for the Mainline and then adjusted it downward based on the impact it would have on tolls. In the absence of some indication in the Board's reasons, there is no basis for such an assumption.

d) The Board may adopt temporary measures to ameliorate "rate shock" so long as the utility eventually recovers its costs.

43 I would add one further point. While I agree with the appellant that the impact on customers or consumers cannot be a factor in the determination of the cost of equity capital, any resulting increase in tolls may be a relevant factor for the Board to consider in determining the way in which a utility should recover its costs. It may be that an increase is so significant that it would lead to "rate shock" if implemented all at once and therefore should be phased in over time. It is quite proper for the Board to take such considerations into account, provided that there is, over a reasonable period of time, no economic loss to the utility in the process. In other words, the phased in tolls would have to compensate the utility for deferring recovery of its cost of capital. In the end, where a cost of service method is used, the utility must recover its costs over a reasonable period of time, regardless of any impact those costs may have on customers or consumers (see Hemlock Valley Electrical Services Ltd. v. British Columbia Utilities Commission et al., [1992] 12 B.C.A.C. 1 at 20-21 (C.A.)). In this case, however, there is no suggestion that the Board sought to phase in or otherwise understate the Mainline's cost of capital.

3. Did the Board fetter its discretion?

a) Appellant's arguments

44 The appellant's second alleged error of law is that the Board fettered its discretion. The appellant submits that the Board placed an inappropriate onus on the appellant to demonstrate that the cost of equity adjustment formula established by the Board in its 1995 decision, but not expressed in the National Energy Board Act or in any judicial authority, was to govern unless the appellant could persuade the Board otherwise.

45 In its factum, the appellant states that the high onus of reversal placed on it by the Board caused the Board to act "inconsistently with its obligations of impartiality as an administrative tribunal." Some of the respondents characterised this as an allegation of bias against the Board.

46 In oral argument, the appellant added that the Board wrongly discarded evidence of both the appellant and the respondents because the Board was not open to reviewing the adjustment formula.

b) The intended duration of the automatic adjustment mechanism.

47 In its 1995 decision, the Board was expressly addressing "what simplified procedure should be implemented to effect an annual adjustment to the rate of return applicable to pipelines between cost of capital proceedings" (RH-2-94 at 1). The Board explained its reasons for seeking an automatic adjustment mechanism in the following words:

In setting this matter down for hearing, it was the Board's intention to put in place means of improving the efficacy of the toll setting process for the year 1995 and beyond. The Board expressed the desire to avoid annual hearings on the cost of capital and was of the view that some automatic mechanism to adjust the return on common equity could be the most appropriate way to ensure that this return continued to be fair to all parties, while avoiding the expense of litigating annual or biennial changes in the rate of return. The Board therefore included as an issue in the RH-2-94 proceeding, the design and implementation of a predetermined adjustment mechanism to the rate of return on the common equity component. The Board's objective in this regard was to conduct detailed examinations of the pipelines' cost of capital only when significant changes had occurred in financial markets, business circumstances, or in general economic conditions (RH-2-94 at 1-2).

48 After an extensive hearing in which it considered the submissions of pipelines, shippers, governments and others, the Board established the automatic adjustment mechanism whereby the cost of equity capital would be determined. As to how long the automatic adjustment mechanism would remain in place, the Board stated:

The Board is not setting a limit on the life of the mechanism and it does not expect to reassess the rate of return on common equity in a formal hearing for at least three years. The Board has confidence that the adjustment mechanism adopted will provide an appropriate balance between the interests of pipeline company shareholders and those of shippers (RH-2-94 at 32).

49 In its 1995 decision, the Board also established a deemed capital structure for the Group 1 pipelines. As discussed above, the Mainline was deemed to have a capital structure made up of 70% debt and 30% equity. The Board expressed the view that its capital structure determination would endure for an extended period of years, but that the Board would be prepared to consider a re-assessment of capital structure if requested by a pipeline, its shippers or another interested party:

The Board also expects that the capital structure set in this hearing for each of the pipelines will endure for an extended period of years. The Board will be prepared to consider a reassessment of capital structures, likely on an individual basis, in the event of a significant change in business risk, in corporate structure or in corporate financial fundamentals. The Board does not favour routine reassessments of capital structure. For these reasons, the Board has not set out a specific date or any criteria for capital structure re-evaluation. Any reassessment of capital structure, for reasons such as those expressed above, must be at the request of the pipeline itself, its shippers or some other interested party. It would then be for the Board to assess the merits of such a request (RH-2-94 at 32).

50 The Board's Order TG/TO-1-95, which implemented the 1995 decision, set the Mainline's deemed capital structure and required that the Mainline's cost of equity capital for 1996 and subsequent years be determined through the application of the adjustment formula. The Order contained no time limit and therefore continues in force until reviewed or varied by the Board.

c) The appellant did bear the burden of showing that the automatic adjustment mechanism should no longer apply.

51 The Board applied its automatic adjustment mechanism annually until 2001 when the appellant brought its fair rate of return application, seeking a review and variance of the 1995 decision and the adoption of a new means of determining its cost of capital.

52 The appellant's position seems to be that when it brought its fair rate of return application in 2001, the Board was required to disregard entirely the automatic adjustment mechanism and start fresh -- with a clean slate as it were -- to determine the appropriate method by which to estimate the Mainline's cost of capital.

53 However, the adjustment formula was part of an order that continued to bind the appellant. Subsection 23(1) of the National Energy Board Act provides:

23. (1) Except as provided in this Act, every decision or order of the Board is final and conclusive.

* * *

23. (1) Sauf exceptions prévues à la présente loi, les décisions ou ordonnances de l'Office sont définitives et sans appel.

Section 22 allows for appeals to the Federal Court of Appeal while subsection 21(1) allows the Board to review, vary and rescind its decisions and orders. Neither the Board's 1995 decision nor the order implementing it were appealed. The adjustment formula therefore continued to apply until the appellant demonstrated to the Board that it should be replaced.

54 The hearing conducted by the Board on the appellant's fair return application was extensive. Written evidence was filed and the oral hearing proceeded for more than a month. The Board's 2002 decision was 64 pages long. The Board considered the appellant's ATWACC proposal and its alternative increased rate of return on equity proposal, reviewed the evidence of the witnesses and ultimately concluded that utilization of the automatic adjustment formula continued to yield a rate of return on equity that the Board considered to be appropriate for the Mainline.

55 However, the Board did, to some extent, accept the appellant's argument that the Mainline's business risk had increased. In order to take account of the increased risk, the Board increased the equity component of the Mainline's deemed capital structure from 30% to 33% so that the capital structure would be 33% equity and 67% debt.

56 I can detect no fettering of discretion or the placing of an improper onus on the appellant in the Board's reasons. In its 1995 decision, the Board stated that its automatic adjustment formula was to reflect a simplified procedure to determine annual adjustments to pipeline rates of return on common equity. It was therefore to continue indefinitely. When an affected party wishes to change the process, it has the onus to demonstrate that its proposal is preferable to the one which is the subject of a binding Board order. That is not an improper onus. Nor does it reflect a fettering of discretion by the Board. Most importantly, it does not give rise to any apprehension of impartiality or bias on the part of the Board.

57 In reviewing the 2002 decision, the Review and Variance Panel found in its 2003 decision that the onus was on the appellant to demonstrate that the automatic adjustment formula was no longer appropriate and that the appellant had failed to do so:

The Fair Return Application was, among other things, an application for review of the RH-2-94 Decision and related orders, pursuant to subsection 21(1) of the Act. The onus was on TransCanada to prove to the Board in RH-4-2001 that the RH-2-94 Formula was no longer appropriate for determining the Mainline's return on equity. Neither the intervenors nor the Board had the onus in the RH-4-2001 proceeding to justify the continued use of the Formula. The Formula was appropriate unless and until TransCanada persuaded the Board otherwise.

TransCanada failed to meet the burden and accordingly, the RH-2-94 Formula continued to apply. The Board was not required in the RH-4-2001 Decision to justify that the Formula was appropriate; that determination was made in the RH-2-94 proceeding (RH-R-1-2002 at 24).

I find no error on the part of the Board in that analysis or conclusion.

d) The Board did not disregard or ignore evidence.

58 As to the appellant's argument that the Board disregarded evidence, I agree that the Board did not adopt the evidence of any particular witness for or against the appellant. But that does not mean that the evidence was discarded or ignored. In cost of capital proceedings, the Board is entitled, on the basis of the evidence before it and the use of its own judgment, to choose a methodology for determining cost of capital and to estimate the cost of capital for a forthcoming year. Very often, the Board's estimate will not reflect the precise estimates of one side or the other or of one witness or another. Having regard to all the evidence, the Board will determine its own estimate. As long as that estimate is within the range of estimates put forward in the evidence and the Board demonstrates that it considered the estimates put forward, the Board cannot be said to have ignored evidence. Indeed, even if the Board's estimate is outside that range, if the Board shows that it considered the evidence submitted and provides adequate reasons for its opinion, the Board will not be found to have ignored evidence.

59 In this case, the estimates in the evidence of the required rate of return on equity ranged from 8.28% to 12.50%. The Board's reasons indicate that it considered the estimates put forward. Using its automatic adjustment formula, the Board calculated that the required rate of return on equity for the Mainline would be 9.61% in 2001 and 9.53% in 2002. I cannot see that the Board disregarded or ignored evidence in deciding to continue to utilize the automatic adjustment formula to determine the required rate of return on equity for the Mainline.

CONCLUSION

60 I would dismiss this appeal with costs.

ROTHSTEIN J.A.

NOËL J.A.:-- I agree

SHARLOW J.A.:-- I agree

cp/e/qw/qlaim

BRITISH COLUMBIA ELECTRIC } APPELLANT; *May 4, 5, 6
RAILWAY CO. LTD. } Oct. 4

AND

THE PUBLIC UTILITIES COMMISSION OF BRITISH COLUMBIA, BRITISH COLUMBIA LUMBER MANUFACTURERS' ASSOCIATION, THE CORPORATION OF THE CITY OF VICTORIA, THE CORPORATION OF THE DISTRICT OF OAK BAY, THE CORPORATION OF THE DISTRICT OF SAANICH, CORPORATION OF THE TOWNSHIP OF ESQUIMALT AND CITY OF VANCOUVER RESPONDENTS.

ON APPEAL FROM THE COURT OF APPEAL FOR
BRITISH COLUMBIA

Public utilities—Case stated by Public Utilities Commission—Matters to be considered by Commission in changing rates—Order of priority to be given to factors considered—The Public Utilities Act, R.S.B.C. 1948, c. 277, s. 16(1)(a) and (b).

*PRESENT: Kerwin C.J. and Locke, Cartwright, Martland and Ritchie JJ.

1960
B.C.
ELECTRIC
RAILWAY
CO. LTD.
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The first of a series of questions submitted for the consideration of the Court of Appeal for British Columbia, in a case stated for the opinion of the Court, asked if the Public Utilities Commission of that Province was right in deciding "that no one of the matters and things referred to in clauses (a) and (b) of subsection (1) of Section 16 of the "Public Utilities Act" should as a matter of law be given priority over any other of those matters or things and that, if a conflict arises among these matters or things, it is the Commission's duty to act to the best of its discretion."

The question was answered in the affirmative. The appellant appealed from that portion of the judgment of the Court of Appeal which comprised this answer.

Held (Kerwin C.J. dissenting): The appeal should be allowed.

Per Locke J.: There is an absolute obligation on the part of the Commission on the application of the utility to approve rates which will produce the fair return to which the utility has been found entitled, and the obligation to have due regard to the protection of the public is also to be discharged. It is not a question of considering priorities between "the matters and things referred to in clauses (a) and (b) of subsection (1) of s. 16", but consideration of these matters is to be given by the Commission in the light of the fact that the obligation to approve rates which will give a fair and reasonable return is absolute.

Per Cartwright, Martland and Ritchie JJ.: The combined effect of the two clauses referred to is that the Commission, when dealing with a rate case, has unlimited discretion as to the matters which it may consider as affecting the rate, but it must when actually setting the rate, meet the requirements specifically mentioned in clause (b), i.e., the rate to be imposed should be neither excessive for the service nor insufficient to provide a fair return on the rate base. These two factors should be given priority over any other matters which the Commission may consider.

Although there is no priority directed by the Act as between these two matters, there is a duty imposed on the Commission to have due regard to both of them, and accordingly there must be a balancing of the interests concerned.

Per Kerwin C.J., dissenting: The statute does not require that any weight be given to the matters and things referred to in the two clauses after they have been considered, and therefore the weight to be assigned is a question of fact for the Commission to decide in each instance.

APPEAL from a portion of a judgment of the Court of Appeal for British Columbia¹, comprising the answer to the first of five questions submitted to it by the Public Utilities Commission. Appeal allowed, Kerwin C.J. dissenting.

J. W. de B. Farris, Q.C., A. Bruce Robertson, Q.C., and R. R. Dodd, for the appellant;

¹(1959), 29 W.W.R. 533.

J. A. Clark, Q.C., for The Public Utilities Commission of British Columbia, respondent;

T. P. O'Grady, for The Corporation of The City of Victoria, The Corporation of The District of Oak Bay, The Corporation of the District of Saanich and Corporation of The Township of Esquimalt, respondents;

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R. K. Baker, for City of Vancouver, respondent.

THE CHIEF JUSTICE (*dissenting*):—Pursuant to s. 107 of the *Public Utilities Act* of British Columbia, R.S.B.C. 1948, c. 277, the Public Utilities Commission stated a case for the opinion of the Court of Appeal for that Province. The case was stated in respect of five questions but we are concerned only with Question 1 as, by order of this Court, British Columbia Electric Railway Company, Limited was granted leave to appeal only from that portion of the judgment of the Court of Appeal comprising the answer given thereto. That question is as follows:

1. (a) Was the Commission right in deciding as appears in the said Reasons for Decision of 14th July, 1958, that no one of the matters and things referred to in clauses (a) and (b) of subsection (1) of Section 16 of the "Public Utilities Act" should as a matter of law be given priority over any other of those matters or things and that, if a conflict arises among these matters or things, it is the Commission's duty to act to the best of its discretion?

(b) If the answer to question (1) (a) is "No", what decision should the Commission have reached on the point?

The Court's answer to Question 1 reads:

The Commission was right in deciding as appears in its Reasons for Decision of 14th July, 1958 that no one of the matters and things referred to in clauses (a) and (b) of subsection (1) of Section 16 of the Public Utilities Act R.S.B.C. 1948, chapter 277 should as a matter of law be given priority over any other of those matters or things and that, if a conflict arises among these matters or things, it is the Commission's duty to act to the best of its discretion.

At the conclusion of the argument the judgment of the Court of Appeal appeared to me to be correct and further consideration has confirmed me in that view. Reasons were given by Sheppard J.A. on behalf of himself and the other four members of the Court who heard the argument on the

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stated case. I adopt all that he said and would have nothing to add were it not for an argument presented on behalf of the appellant. Section 16(1)(a) and (b) read as follows:

16. (1) In fixing any rate:—

(a) The Commission shall consider all matters which it deems proper as affecting the rate:

(b) The Commission shall have due regard, among other things, to the protection of the public from rates that are excessive as being more than a fair and reasonable charge for services of the nature and quality furnished by the public utility; and to giving to the public utility a fair and reasonable return upon the appraised value of the property of the public utility used, or prudently and reasonably acquired, to enable the public utility to furnish the service:

Mr. Farris submitted that the Court of Appeal had not taken into consideration the words in (1)(b) "The Commission shall have due regard.....and to giving to the public utility a fair and reasonable return upon the appraised value of the property of the public utility used, or prudently and reasonably acquired, to enable the public utility to furnish the service:". However, I am satisfied upon a review of the reasons of Sheppard J.A., relevant to Question 1, and particularly of the extract transcribed below, which is the substance of his reasoning upon the matter; that he did consider and apply these words. The extract reads:

A further inquiry is what weight should be given to the matters required to be considered by Sec. 16 (1) (b) and particularly to the "fair and reasonable return". Under Sec. 16 (1) (b), the Commission is required to consider "the protection of the public" and the "giving to the public utility a fair and reasonable return". Although clauses (a) and (b) of Sec. 16 (1) require certain matters to be considered, they do not state what weight is to be assigned by the Commission. Consequently, the Statute requires only that the Commission consider the matters falling within Sec. 16 (1) (a), namely, "all matters which it deems proper as affecting the rate" and those falling within Sec. 16 (1) (b), namely, "the protection of the public" and "a fair and reasonable return" to the Utility. But the Statute does not require more, and does not require any weight to be given to these matters after they have been considered. Hence the weight to be assigned is outside any statutory requirement and must be a question of fact for the Commission in each instance.

Furthermore, as Mr. Clark pointed out, the Commission when dealing with the electric rates applications, had, under heading "III.—A Fair Return", discussed that subject; and that in their reasons for decision with reference to the transit fares applications the Commission speaks "of the misunderstanding which arose from the recent decision on

electric rates"; and that later, in the same paragraph, they said: "The 6.5% rate remains the standard of the fair and reasonable return to which the Commission has due regard".

The appeal should be dismissed but there should be no costs.

LOCKE J.:—The sections of the *Public Utilities Act*, R.S.B.C. 1948, c. 277, which must be considered in deciding the first question are quoted in the reasons of my brother Kerwin C.J. Martland which I have had the advantage of reading.

The real question might have been stated more clearly had it asked whether as a matter of law a duty rested upon the Commission to approve rates which would produce for the appellant a fair and reasonable return upon the appraised value of the property used or prudently and reasonably acquired by it to enable it to furnish the service described in the Act when the fact as to what constituted a fair return had previously been determined by the Commission. This is the matter to be determined.

Some assistance in interpreting the sections of the Act is to be obtained by an examination of the earlier legislation dealing with the control of rates charged for electrical power in British Columbia.

The first statutory provision dealing with the matter appears in the *Water Act Amendment Act* of 1929 which appeared as c. 67 of the statutes of that year. This Act provided for the control of such rates and imposed upon a power company producing electrical energy by water power the duty of supplying electrical energy to the public in the manner defined. Power companies were required to file schedules of their tolls with the Water Board constituted under the *Water Act*, R.S.B.C. 1924, c. 271.

"Unjust and unreasonable" as applied to tolls was declared to include injustice and unreasonableness, whether arising from the fact that the tolls were insufficient to yield fair compensation for the service rendered or from the fact that they were excessive as being more than a fair and reasonable charge for service of the nature and quality furnished.

Section 141B authorized the Board upon the complaint of any person interested that a toll charge was unjust, unreasonable or unduly discriminatory to enquire into the matter,

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to disallow any rate found to be excessive, and to fix the tolls to be charged by the power company for its service or respecting the improvement of the service in such manner as the Board considered just and reasonable.

Section 141C read:

Every power company shall be entitled to a fair return on the value of all property acquired by it and used in providing service to the public of the nature and kind furnished by such power company or reasonably held by such power company for use in such service and the Board in determining any toll shall have due regard to that principle.

Section 141D read in part:

In considering any complaint and making any order respecting the tolls to be charged by any power company the Board shall have due regard, among other things, to allowing the company a fair return upon the value of the property of the company referred to in Clause 141C and to the protection of the public from tolls that are excessive as being more than a fair and reasonable charge for services of the nature and quality furnished by the company.

These amendments to the *Water Act* appeared as ss. 138 to 157 in the Revision of the Statutes of 1936 and these sections were repealed when the first *Public Utilities Act* was passed by the Legislature, c. 47 of the statutes of 1938.

It will be seen by an examination of the *Public Utilities Act* that in large measure the language of the amendments to the *Water Act* made in 1929 was adopted. The definition of the terms "unjust" and "unreasonable", which appeared in the 1929 amendment as part of s. 2, was reproduced in s. 2 of the Act of 1938. The prohibition against levying any unjust and unreasonable, unduly discriminatory or unduly preferential rate appearing as s. 8 of the *Public Utilities Act* merely expresses in slightly different terms the prohibition contained in s. 141B. The expression "shall have due regard" which appears in s. 16(1)(b) of the *Public Utilities Act* was apparently taken from ss. 141C and D.

The *Public Utilities Act*, however, did not, when first enacted, and does not now contain any section which declares in express terms, as did s. 141C of the *Water Act Amendment Act*, that the power company shall be entitled to a fair return on the value of its property. Had the present Act contained such a provision it appears to me to be perfectly clear that the answer to be made to the first question should differ from that given by the Court of Appeal.

Whether its omission affects the matter is to be determined.

As it has been pointed out, the utility in the present matter is required by the Act to maintain its property in such condition as to enable it to supply an adequate service to the public and to furnish that service to all persons who may be reasonably entitled thereto without discrimination and without delay. It may not discontinue its operations without the permission of the Public Utilities Commission. The utility has, so far as we are informed, a monopoly on the sale of electrical energy in the Cities of Vancouver and Victoria and in my opinion at common law the duty thus cast upon it by statute would have entitled it to be paid fair and reasonable charges for the services rendered in the absence of any statutory provision for such payment.

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I consider that, in this respect, the position of such a utility would be similar to that of a common carrier upon whom is imposed as a matter of law the duty of transporting goods tendered to him for transport at fair and reasonable rates. This has been so from very early times. In *Bastard v. Bastard*¹, in an action against a common carrier in the Court of King's Bench for the loss of a box delivered to him for carriage, in delivering judgment for the plaintiff it was said that, while there was no particular agreement as to the amount to be paid for the carriage, "then the carrier might have a *quantum meruit* for his hire".

In *Great Western Railway v. Sutton*², Blackburn J. said in part:

The obligation which the common law imposed upon him was to accept and carry all goods delivered to him for carriage according to his profession (unless he had some reasonable excuse for not doing so) on being paid a reasonable compensation for so doing.

The result of the authorities appears to me to be correctly summarized in Browne's Law of Carriers, at p. 42, where it is said:

We have already seen that the law imposes very onerous duties, and very considerable risks, upon a person who is designated a common carrier. As to his duty, he is bound by law to undertake the carriage of goods. Another man is free from any such duty until he has entered into a special agreement; but the law holds that the common carrier, by the very fact of his trade and business, has, on his side, entered into an agreement with the public to carry goods, which becomes at once a complete and binding contract when any person brings him the goods,

¹(1679), 2 Show. 81, 89 E.R. 807.

²(1869), L.R. 4 H.L. 226 at 237, 38 L.J. Ex. 177.

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and makes the request that he should carry them to a certain person or place. To make such a contract binding upon him as a common carrier, it is not necessary that a specific sum of money should be promised or agreed upon; but where that is not the case, there is an implied undertaking upon the part of the bailor that the remuneration shall be reasonable.

The *Water Act Amendment Act* of 1929 appears to have followed closely the form of public utilities legislation in certain of the United States. There had been statutes of this nature in force in various parts of the Union for a considerable time prior to the year 1929.

I do not find that the American statutes generally declared in terms as did s. 141C of the *Water Act Amendment Act* that a power company providing service to the public should be entitled to a fair return on the value of all property acquired by it and used in providing service to the public. This method, however, of establishing a fair and reasonable rate would appear to have been followed universally.

The authorities in the American cases are to be found summarized in Nichols—*Ruling Principles of Utility Regulation*, at p. 49—where a passage from the judgment of the Supreme Court of the United States in *Bluefield Water Works & Improvement Co. v. West Virginia Public Service Commission*¹ is quoted reading:

Rates which are not sufficient to yield a reasonable return on the value of the property used at the time it is being used to render the service are unjust, unreasonable, and confiscatory, and their enforcement deprives the public utility company of its property in violation of the Fourteenth Amendment. This is so well settled by numerous decisions of this court that citation of the cases is scarcely necessary.

In *New Jersey Public Utility Commissioners v. New York Telephone Company*², Butler J. said:

The just compensation safeguarded to the utility by the Fourteenth Amendment is a reasonable return on the value of the property used at the time that it is being used for public service. And rates not sufficient to yield that return are confiscatory.

While without the provision made in s. 141C of the *Water Act Amendment Act* a power company compelled by the amendment to furnish electrical service on demand

¹ (1923), 262 U.S. 679.

² (1925), 271 U.S. 23 at 31.

upon the conditions prescribed would in my opinion have been entitled to a fair and reasonable payment for such service, the Legislature, by s. 141C, defined the manner in which fair and reasonable rates should be established.

As I have said, the *Public Utilities Act* does not contain any provision which in terms declares the right of the utility to a fair return on the value of its property. It does, however, by the definition of the terms "unjust" and "unreasonable" adopted from the *Water Act Amendment Act* declare that these expressions include rates that are insufficient to yield fair compensation for the service rendered, and the Public Utilities Commission in the present matter have interpreted this in its context as indicating the yardstick to be used in determining the fair and reasonable return to which the appellant was entitled.

Under the powers given to the Commission by s. 45 of the Act the value of the property of the appellant used, or prudently or reasonably acquired to enable the company to furnish its services was determined as at December 31st, 1942, and since then has been kept up to date. On September 11th, 1952, the Commission, after public hearings, decided that until some change in the financial and market circumstances convinced the Commission that a different rate should be applied, the Commission would apply the rate of 6.5 per cent. on the rate base as a fair and reasonable rate of return for the company.

That decision remains unchanged and is not questioned by anyone in these proceedings.

In interpreting the statute, the position at common law of the utility after the repeal of the sections of the *Water Act* must be considered. Had the statute imposed upon the appellant the obligation to furnish service of the natures defined upon demand, without more, it would have been entitled as a matter of law to recover from a person demanding service reasonable and fair compensation. It will not in my opinion be presumed that it was the intention of the Legislature to deprive a utility of that common law right.

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In *Colonial Sugar Refining Company v. Melbourne Harbour Trust Commissioners*¹, the Judicial Committee said:

In considering the construction and effect of this Act the Board is guided by the well known principle that a statute should not be held to take away private rights of property without compensation, unless the intention to do so is expressed in clear and unambiguous terms.

In Maxwell on Statutes, 10th ed., at p. 286, the authorities are thus summarized:

Proprietary rights should not be held to be taken away by Parliament without provision for compensation unless the legislature has so provided in clear terms. It is presumed, where the objects of the Act do not obviously imply such an intention, that the legislature does not desire to confiscate the property or to encroach upon the right of persons, and it is therefore expected that, if such be its intention, it will manifest it plainly, if not in express words at least by clear implication and beyond reasonable doubt.

Subsection 6 of s. 23 of the *Interpretation Act*, R.S.B.C. 1948, c. 1, directs that every Act shall receive such fair, large and liberal construction and interpretation as will best ensure the attainment of the object of the Act. In my opinion the true meaning of the relevant sections of the *Public Utilities Act* is that a utility is given a statutory right to the approval of rates which will afford to it fair compensation for the services rendered and that the quantum of that compensation is to be a fair and reasonable rate of return upon the appraised value of the property of the company referred to in s. 16(1)(b).

The appellant in addition to the sale of electrical energy operates a public transportation system and sells gas and by an Order-in-Council made under the provisions of s. 15(1)(c) of the Statutes of 1938 it was directed that these three categories of service should be considered as one unit in fixing the rates. In the reasons delivered by the Commission upon the application to increase the rates for electricity, it is said that the appellant has never earned the approved rate of return and that the rates proposed by it, and which were not approved, would not enable it to do so even in respect of the electrical system alone.

¹[1927] A.C. 343 at 359, 96 L.J.P.C. 74.

Rates that fail to yield fair compensation for the service rendered are declared by s. 2 to be unjust and unreasonable as they were by s. 2 of the *Water Act Amendment Act* of 1929. The Commission is directed by s. 16(1)(b) to have due regard to fixing a rate which will give to the utility a fair and reasonable return upon the appraised value of its property used or prudently and reasonably acquired to enable it to furnish the service. It is the inclusion of the expression "shall have due regard" which has led the Commission and the Court of Appeal to conclude that this means that allowing a fair return upon the appraised value is simply one of the matters to be considered by the Commission in fixing the rate. Clearly no such interpretation could have been placed upon this expression under the provisions of the *Water Act* in view of the express provisions of s. 141C, and with great respect I think no such interpretation should be given to it in the present statute.

The fair compensation referred to in s. 2 of the *Water Act Amendment Act* of 1929 referred, and could only refer, to an aggregate produced by tolls sufficient to yield to the power company the fair return on the value of its property to which s. 141C declared it was entitled. The fair compensation referred to in s. 2 of the *Public Utilities Act* is in its context, in my opinion, to be construed in the same manner. The Order of the Commission of September 11th, 1952, determined what that compensation should be. The rates to be put into force to yield such fair compensation, which, at least in the case of electricity, vary in accordance with the use to which it is put and the quantities purchased, are matters to be determined by the Commission. The direction to the Commission in s. 16(1)(b) to have due regard to the protection of the public from rates that are excessive as being more than a fair and reasonable charge for the services requires it, in my opinion, to approve rates which are in its judgment fair and reasonable having in mind the purpose for which the electricity is used, the quantities purchased and such other matters as it considers justify the approval of rates which differ for different users.

I can find nothing in this legislation indicating an intention on the part of the Legislature to empower the Commission to deprive the utility of its common law right to be paid fair compensation for the varying services rendered or

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to depart from the declared intention of the Legislature in the *Water Act Amendment Act* that such companies upon whom these obligations are imposed are entitled to have the quantum of such fair compensation determined as a fair return upon the appraised value of the properties required.

I do not think it is possible to define what constitutes a fair return upon the property of utilities in a manner applicable to all cases or that it is expedient to attempt to do so. It is a continuing obligation that rests upon such a utility to provide what the Commission regards as adequate service in supplying not only electricity but transportation and gas, to maintain its properties in a satisfactory state to render adequate service and to provide extensions to these services when, in the opinion of the Commission, such are necessary. In coming to its conclusion as to what constituted a fair return to be allowed to the appellant these matters as well as the undoubted fact that the earnings must be sufficient, if the company was to discharge these statutory duties, to enable it to pay reasonable dividends and attract capital, either by the sale of shares or securities, were of necessity considered. Once that decision was made it was, in my opinion, the duty of the Commission imposed by the statute to approve rates which would enable the company to earn such a return or such lesser return as it might decide to ask. As the reasons delivered by the Commission show, the present appellant did not ask the approval of rates which would yield a return of 6.5 per cent. to which it was entitled under the Order of the Board.

I do not consider that Question (1) can be answered by a simple affirmative or negative. The obligation to approve rates which will produce the fair return to which the utility has been found entitled is, in my opinion, absolute, which does not mean that the obligation of the Commission to have due regard to the protection of the public, as required by s. 16(1)(b), is not to be discharged. It is not a question of considering priorities between "the matters and things referred to in Clauses (a) and (b) of subsection (1) of s. 16". The Commission is directed by s. 16(1)(a) to consider all matters which it deems proper as affecting the rate but that consideration is to be given in the light of the fact that the obligation to approve rates which will give a fair and reasonable return is absolute.

In my opinion the answer to be made to Question (1)(a) is that the Commission was wrong in deciding that it was not required to approve rates which in the aggregate would produce for the utility the fair return which by its order of September 11, 1952, the Commission found it to be entitled or such lower rates as the utility might submit for approval. The duty of the Commission to have due regard to the protection of the public from excessive rates referred to in the first four lines of s. 16(1)(b) refers to the approval of rates according to the use to be made by and the quantities supplied to those to whom the service is rendered.

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The second part of Question (1) reads:

If the answer to (1)(a) is "No", what decision should the Commission have reached on the point?

As to this I agree with the answer proposed by my brother Martland.

I would allow this appeal but make no order as to costs.

The judgment of Cartwright, Martland and Ritchie JJ. was delivered by

MARTLAND J.:—Pursuant to the provisions of subs. (1) of s. 107 of the *Public Utilities Act* of British Columbia, R.S.B.C. 1948, c. 277, the Public Utilities Commission of that Province stated a case for the opinion of the Court of Appeal of British Columbia. Five questions were submitted for the consideration of the Court, of which the first was as follows:

(1) (a) Was the Commission right in deciding as appears in the said Reasons for Decision of 14th July, 1958, that no one of the matters and things referred to in clauses (a) and (b) of subsection (1) of Section 16 of the "Public Utilities Act" should as a matter of law be given priority over any other of those matters or things and that, if a conflict arises among these matters or things, it is the Commission's duty to act to the best of its discretion?

(b) If the answer to question (1) (a) is "No", what decision should the Commission have reached on the point?

Question (1)(a) was answered in the affirmative. The appellant, by special leave of this Court, has appealed from that portion of the judgment of the Court of Appeal which comprises the answer given by it to question (1). The other four questions and the answers given to them are not in issue in this appeal.

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The relevant circumstances involved are contained in the case stated by the Public Utilities Commission and are as follows:

The appellant and British Columbia Electric Company Limited (together called "the Company") are related companies and between them own and operate equipment and facilities for the transportation of persons and property by railway, trolley coach and motor buses and for the production, generation and furnishing of gas and electricity, all for the public for compensation.

The Company is regulated by the Public Utilities Commission of British Columbia (called "the Commission") pursuant to the provisions of the *Public Utilities Act*.

By appraisal the Commission ascertained the value of the property of the Company used, or prudently and reasonably acquired, to enable the Company to furnish its services. The appraisal was made as of December 31, 1942, and since then has been kept up to date. The appraised value is referred to as "the rate base".

By Order-in-Council No. 1627, approved on July 16, 1948, the Commission was directed to consider the classes or categories of the regulated services of the Company as one unit in fixing the rates.

On September 11, 1952, the Commission after public hearing made "Findings as to Rate of Return" and decided that, "until changed financial and market circumstances convince the Commission that a different rate should be applied, the Commission will in its continuing examination of the Company's operations apply the rate of 6.5%" on the rate base as a fair and reasonable rate of return for the Company. This decision remains unchanged.

The Company from time to time amended its rate schedules with the consent of the Commission and filed with the Commission schedules showing the rates so established. On April 23, 1958, it applied for the consent of the Commission, under s. 17 of the *Public Utilities Act*, to file amended schedules containing increased rates for its electric service on the Mainland and on Vancouver Island. On July 28, 1958, it also applied for the consent of the Commission to file amended schedules containing increased transit fares for its transit systems in Vancouver and other Mainland areas and in Victoria and surrounding areas.

Public hearings were held by the Commission and it handed down its decision with respect to the electric applications on July 14, 1958, and with respect to the transit applications on October 30, 1958.

Briefly, the decisions of the Commission accepted the proposed rate schedules submitted by the Company, except that it refused to approve the proposed increases in the principal residential electric rates on the Mainland and on Vancouver Island. It directed that those rates be scaled down by approximately 25%. In its decision with respect to electric rates the Commission stated:

The Commission has therefore consented to the filing to be effective July 15th, 1958, of all the rate schedules submitted by the Company for the Mainland and Vancouver Island, as modified and supplemented by the Company during the course of the hearings on its application, except the residential rate schedules and Mainland Rate 3035 for industrial users.

The Commission has decided that the principal residential rate on the Mainland (Schedule 1109) and the principal residential rate on the Island (Schedule 1110 under which the principal divisions are Billing Codes 1110 and 1112) should be adjusted to yield not more than three-quarters of the additional revenue proposed. The adjustment must be applied primarily to reduce sharp changes in impact and lessen disproportionately large percentage increases in the consumption range of 60 KWH to 280 KWH per month. Comparable adjustments must also be made in some of the related special residential rates of lesser importance. Most of the relief would be given to the small residential user.

At the same time the Commission decided that further increases in the commercial and industrial rates to compensate for this reduction in the proposed residential rates would not be justified.

During the hearings it was contended by counsel for the Company that, the Commission, having determined on a fair and reasonable return to the Company, namely, 6.5%, the Commission should authorize rates which would yield that return, or whatever lesser return the Company's application requested for the time being. The Commission did not accept this contention and the rates which were approved by the Commission would yield approximately \$750,000 less per annum than those applied for by the Company would yield. The rates for which the Company sought approval themselves would not have yielded to the Company the full allowed rate of return of 6.5%.

The relevant portions of s. 16(1) of the *Public Utilities Act* provide as follows:

16. (1) In fixing any rate:—

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- (a) The Commission shall consider all matters which it deems proper as affecting the rate:
- (b) The Commission shall have due regard, among other things, to the protection of the public from rates that are excessive as being more than a fair and reasonable charge for services of the nature and quality furnished by the public utility; and to giving to the public utility a fair and reasonable return upon the appraised value of the property of the public utility used, or prudently and reasonably acquired, to enable the public utility to furnish the service:
- (c) Where the public utility furnishes more than one class of service, the Commission shall segregate the various kinds of service into distinct classes or categories of service; and for the purpose of fixing the rate to be charged for the service rendered, each distinct class or category of service shall be considered as a self-contained unit, and the rates fixed for each unit shall be such as are considered just and reasonable for that unit without regard to the rates fixed for any other unit. If it is considered by the Lieutenant-Governor in Council that the rates as so determined might be inequitable or contrary to the general public interest, the Lieutenant-Governor in Council may direct that two or more classes or categories of service shall be considered as one unit in fixing the rate:

In the reasons given for its decision the Commission deals with the effect of clauses (a) and (b) of s. 16(1) and says:

With great respect, the Commission considers that although for this purpose the statutory duty of the Commission to have due regard to all matters which the Commission deems proper as affecting the rate might without any significant inaccuracy be described as the right of the Commission, and its statutory duty to *have due regard to giving* the utility a fair and reasonable return might without significant inaccuracy be described as the Commission's *responsibility for giving* the utility a fair and reasonable return, there is nothing in the Act to relieve the Commission in the case now before it from complying with the language of the Act and giving due regard to all those matters to which the legislature has directed the Commission to give due regard in fixing a rate. No one of those matters should, in the opinion of the Commission, be given as a matter of law priority over any other of those matters and if, as the legislature appears to have thought possible, a conflict arises among those matters, the Commission considers that it is its duty to act to the best of its discretion.

The Court of Appeal concurred in this view. The judgment of the Court¹, delivered by Sheppard J.A., refers to this question in the following words:

A further inquiry is what weight should be given to the matters required to be considered by Sec. 16(1)(b) and particularly to the "fair and reasonable return". Under Sec. 16(1)(b), the Commission is required

¹(1959), 29 W.W.R. 533 at 538.

to consider "the protection of the public" and the "giving to the public utility a fair and reasonable return". Although clauses (a) and (b) of Sec. 16(1) require certain matters to be considered, they do not state what weight is to be assigned by the Commission. Consequently, the Statute requires only that the Commission consider the matters falling within Sec. 16(1)(a), namely, "all matters which it deems proper as affecting the rate" and those falling within Sec. 16(1)(b), namely, "the protection of the public" and "a fair and reasonable return" to the Utility. But the Statute does not require more, and does not require any weight to be given to these matters after they have been considered. Hence Martland J. the weight to be assigned is outside any statutory requirement and must be a question of fact for the Commission in each instance.

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From this decision the present appeal is brought.

To determine the intent and meaning of clauses (a) and (b) of s. 16(1) of the Act it is necessary to consider them in relation to the other provisions of the Act, with which they must be read.

Section 5 imposes upon a public utility the duty to maintain its property and equipment in such condition as to enable it to furnish, and to furnish, service to the public in all respects adequate, safe, efficient, just and reasonable. Section 7 prevents a public utility which has been granted a certificate of public convenience and necessity or a franchise from ceasing its operations or any part of them without first obtaining the permission of the Commission.

Section 6 requires every public utility, upon reasonable notice, to furnish to all persons who may apply therefor, and be reasonably entitled thereto, suitable service without discrimination and without delay.

Sections 38, 42 and 43 contain provisions whereby, in the circumstances therein defined, a public utility may be ordered by the Commission to extend its existing services.

These four sections last mentioned involve a statutory obligation on the part of a public utility to make capital outlays for extensions of its service. A public utility which operates in a rapidly expanding community may be required to make substantial expenditures of that nature in order to keep pace with increasing demands. It must, if it is to fulfil those obligations, be able to obtain the necessary

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capital which is required, which it can only do if it is obtaining a fair rate of return upon its rate base. The meaning of a fair return was defined by Lamont J. in *Northwestern Utilities, Limited v. City of Edmonton*¹:

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

The necessity for giving a public utility fair compensation for the service which it renders appears in the definition of the words "unjust" and "unreasonable" in s. 2(1), which is as follows:

"Unjust" and "unreasonable" as applied to rates shall be construed to include respectively injustice and unreasonableness, whether arising from the fact that rates are excessive as being more than a fair and reasonable charge for service of the nature and quality furnished by the public utility, or from the fact that rates are insufficient to yield fair compensation for the service rendered, or arising in any other manner:

The word "service", which appears in this definition, is defined in the Act to include:

the use and accommodation afforded consumers or patrons, and any product or commodity furnished by a public utility; and also includes, unless the context otherwise requires, the plant, equipment, apparatus, appliances, property, and facilities employed by or in connection with any public utility in performing any service or in furnishing any product or commodity and devoted to the purposes in which the public utility is engaged and to the use and accommodation of the public:

These defined words appear in two sections of the Act which relate to the rates to be charged by a public utility.

Section 8, which is among a group of sections dealing with the duties and restrictions imposed on public utilities, provides:

8. (1) No public utility shall make demand or receive any unjust, unreasonable, unduly discriminatory, or unduly preferential rate for any service furnished by it within the Province, or any rate otherwise in violation of law; and no public utility shall, as to rates or service, subject any person or locality, or any particular descripton of traffic, to any undue prejudice or disadvantage, or extend to any person any form of agreement, or any rule or regulation, or any facility or privilege, except such as are regularly and uniformly extended to all persons under substantially similar circumstances and conditions in respect of service of the same description, and the Commission may by regulations declare what constitute substantially similar circumstances and conditions.

¹[1929] S.C.R. 186 at 193, 2 D.L.R. 4.

(2) It shall be a question of fact, of which the Commission shall be the sole judge, whether any rate is unjust or unreasonable, or whether in any case there is undue discrimination, preference, prejudice, or disadvantage in respect of any rate or service, or whether service is offered or furnished under substantially similar circumstances and conditions. 1938, c. 47, s. 8; 1939, c. 46, s. 5.

Section 20, which empowers the Commission to determine rates, reads as follows:

20. The Commission may upon its own motion or upon complaint that the existing rates in effect and collected or any rates charged or attempted to be charged by any public utility for any service are unjust, unreasonable, insufficient, or discriminatory, or in anywise in violation of law, after a hearing, determine the just, reasonable, and sufficient rates to be thereafter observed and in force, and shall fix the same by order. The public utility affected shall thereupon amend its schedules in conformity with the order and file amended schedules with the Commission.

It will be noted that this section, in addition to the use of the words "unjust" and "unreasonable", also uses the terms "insufficient" and "sufficient" in relation to rates.

Both of these sections contemplate a system of rates which would be fair to the consumer on the one hand and which will yield fair compensation to the public utility on the other hand.

Section 16, the section with which we are concerned in this appeal, also deals with this matter of fairness of rates. In addition, it spells out the method by which a public utility is to obtain fair compensation for its service; i.e., by a fair and reasonable return upon its rate base, which rate base, pursuant to s. 45, the Commission can determine by appraisal.

Section 16 deals with the duties of the Commission in fixing rates. Clause (a) of subs. (1) states that the Commission shall consider all matters which it deems proper as affecting the rate. It confers on the Commission a discretion to determine the matters which it deems proper for consideration and it requires the Commission to consider such matters.

Clause (b) of subs. (1) does not use the word "consider", which is used in clause (a), but directs that the Commission "shall have due regard", among other things, to two specific matters. These are:

- (i) The protection of the public from rates that are excessive as being more than a fair and reasonable charge for services of the nature and quality furnished by the public utility; and

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- (ii) To giving to the public utility a fair and reasonable return upon the appraised value of its property used or prudently and reasonably acquired to enable the public utility to furnish the service.

As I read them, the combined effect of the two clauses is that the Commission, when dealing with a rate case, has unlimited discretion as to the matters which it may consider as affecting the rate, but that it must, when actually setting the rate, meet the two requirements specifically mentioned in clause (b). It would appear, reading ss. 8, 16 and 20 together, that the Act contemplates these two matters to be of primary importance in the fixing of rates.

In my opinion, therefore, these two factors should be given priority over any other matters which the Commission may consider under clause (a), or any other things to which it shall have due regard under clause (b), when it is fixing any rate.

The second portion of question (1)(a) was as to whether, in case of conflict among the matters and things referred to in clauses (a) and (b) of s. 16(1), it was the Commission's duty to act to the best of its discretion. I have already expressed my view regarding the priority as between those things specifically mentioned in clause (b) and the other matters or things referred to in clauses (a) and (b). This leaves the question as to possible conflict as between the two matters specifically mentioned in clause (b).

Clearly, as between these two matters there is no priority directed by the Act, but there is a duty imposed upon the Commission to have due regard to both of them. The rate to be imposed shall be neither excessive for the service nor insufficient to provide a fair return on the rate base. There must be a balancing of interests. In my view, however, if a public utility is providing an adequate and efficient service (as it is required to do by s. 5 of the Act), without incurring unnecessary, unreasonable or excessive costs in so doing, I cannot see how a schedule of rates, which, overall, yields less revenue than would be required to provide that rate of return on its rate base which the Commission has determined to be fair and reasonable, can be considered, overall, as being excessive. It may be that within the schedule certain rates may operate unfairly, relatively, as

between different classes of service or different classes of consumers. If so, the Commission has the duty to prevent such discrimination. But this can be accomplished by adjustments of the relative impact of the various rates in the schedule without having to reduce the total revenues which the whole schedule of rates is designed to produce.

Accordingly, it is my opinion that the answer to question (1)(a) should be "No". My answer to question (1)(b) would be that the Commission, in priority to any other matters which it may deem proper to consider under clause (a) and any of the other things referred to in clause (b) of s. 16(1), should have due regard to the two matters specifically mentioned in clause (b). In the present case, having decided that certain of the rates proposed by the appellant would impose an unreasonable burden upon certain classes of consumers, the Commission should permit the Company to submit alternative schedules of rates, which, while yielding approximately the same overall revenues, would eliminate the comparatively excessive impact of those classes of rates to which the Commission objected, until a rate schedule is devised which meets the requirements of clause (b) of s. 16(1).

In my view the appeal should be allowed, but no costs should be payable.

Appeal allowed, Kerwin C.J. dissenting.

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