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

Attention: Laurel Ross, Acting Commission Secretary and Director

Dear Sirs/Mesdames:

Re: FortisBC Energy Inc. ("FEI")
Application for Common Equity Component and Return on Equity for 2016

We enclose for filing in the above proceeding the electronic version of the Final Submission of FEI dated April 3, 2016, together with electronic copies of the judicial authorities cited.

Yours truly,

FASKEN MARTINEAU DuMOULIN LLP

[original signed by Matthew Ghikas]

Matthew Ghikas
Personal Law Corporation

MG/ta
Enclosure

BRITISH COLUMBIA UTILITIES COMMISSION

IN THE MATTER OF THE UTILITIES COMMISSION ACT
R.S.B.C. 1996, CHAPTER 473

AND

IN THE MATTER OF AN APPLICATION BY FORTISBC ENERGY INC. FOR ITS COMMON EQUITY COMPONENT AND RETURN ON EQUITY FOR 2016

SUBMISSION OF
FORTISBC ENERGY INC.

APRIL 3, 2016

TABLE OF CONTENTS

PART ONE: INTRODUCTION AND OVERVIEW

A. INTRODUCTION

1. The Fair Return Standard is the touchstone of this proceeding. It requires setting an overall return (i.e., the combined capital structure and return on equity ("ROE")) for 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 all market conditions. The Fair Return Standard recognizes that FEI has committed, and is being asked to continue committing, capital on a long-term basis to provide safe and reliable 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 to achieve lower rates in the short-term. In the current circumstances - accounting for factors including FEI's business risk, ongoing material capital expenditures, capital market conditions, credit metrics, and the returns of other utilities - FEI's proposed common equity ratio of 40 percent, and a return on common equity of 9.5 percent, meets the Fair Return Standard and should be approved.

B. OVERVIEW

(a) Overall Reasonableness of the Parties' Respective Positions

2. As the Fair Return Standard is ultimately concerned with overall allowed utility returns (ROE and capital structure considered together), the overall result in this proceeding must make sense in light of the totality of the evidence. In Part Three of this Submission, FEI discusses a number of factors that speak to the overall reasonableness of FEI's request, and demonstrate that Dr. Booth's recommendations of 7.5 percent ROE on a common equity component of 35 percent are counterintuitive and unsupported by his own empirical assessment. These factors include:

(a) First, FEI's request is based on and supported by the expert evidence of Mr. Coyne, a cost of capital expert with extensive industry knowledge, who reached his recommendations using a robust and transparent methodology.

(b) Second, Dr. Booth's favoured Risk Premium Model output has increased since 2012, providing directional support for an increase in the current allowed ROE.

(c) Third, Mr. Coyne's recommendations make sense in the context of Canadian distribution utility returns, while Dr. Booth's recommendations do not.

(d) Fourth, the output of Dr. Booth's favoured Risk Premium Model does not support his recommendation of 7.50 percent:

  (i) The correction that Dr. Booth made to his evidence should have, both intuitively and based on Dr. Booth's own underlying analysis, prompted him to revise his recommendation upwards to 8.13 percent.

  (ii) Dr. Booth's own data confirms that his "Operation Twist" adjustment is insufficient to accomplish its stated purpose.

(e) Fifth, Dr. Booth's rejection of CAPM and conditional CAPM results, combined with his admission that he now has "less faith" in the "Operation Twist" adjustment designed to rectify his low CAPM results, casts significant doubt on the usefulness of his Risk Premium Model.

(f) Sixth, Dr. Booth's practice of recommending the same overall return for utilities of widely varying risks, irrespective of market conditions, is not a reasonable approach.

(g) Seventh, Dr. Booth's initial suggestion that the output of the Automatic Adjustment Mechanism ("AAM") confirmed FEI's allowed ROE should be reduced was inconsistent with his own evidence and, in any event, updated data produce the opposite results.

(h) Eighth, the magnitude of Dr. Booth's recommended decrease in FEI's current overall return cannot be reconciled with his view that FEI's business risk has only marginally changed and the economy has very much been in a holding pattern since 2012.

(i) Ninth, Dr. Booth's ranking of the relative riskiness of Canadian gas distribution utilities changes depending on the jurisdiction where he is testifying, with the common denominator being that the riskiness of the utility under review is minimized relative to other utilities.

(b) Common Equity Ratio

3. Parts Four and Five of this Submission explain in greater detail why a 40 percent common equity ratio is warranted in light of FEI's current business risks, common equity ratios of other Canadian natural gas distribution utilities, FEI's significant capital investments, and the importance of maintaining a credit rating within the "A" level.

4. FEI and Dr. Booth are in agreement that there has been significant continuity in FEI's risk profile in the three years since the Generic Cost of Capital ("GCOC") proceeding.[1] There is consensus, for instance, that amalgamation of the three FortisBC Energy utilities has not had a material effect on FEI's business profile.[2] Low commodity prices have not slowed the decline in Use Per Customer ("UPC") and the loss of market share in space heating and water heating applications.[3] FEI must continue to add customers at an increasing rate just to maintain current throughput levels. British Columbia's abundant hydroelectricity makes FEI's natural gas heating load a primary target to meet provincial and municipal GHG reduction targets in a way that other Canadian natural gas utilities do not face.

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1 Exhibit B-1, Application, p. 4; Exhibit C7-7-2, Evidence of Dr. Booth (Corrected), pp. 2, 80.

2 Exhibit B-1, Application, p. 3; Exhibit B-1, Application, Appendix B, Evidence of Mr. Coyne, p. 99; Exhibit C7-7-2, Evidence of Dr. Booth (Corrected), p. 2.

3 Exhibit B-4, CEC-FEI IR 1.16.2.

5. However, new developments in municipal policy and new provincial initiatives like the Climate Action Team - both of which are largely overlooked by Dr. Booth - are compounding the risks reflected in the GCOC Stage 1 Decision.[4] There have been developments at the federal government level as well. Regulatory risk also has the potential to be higher over the term of FEI's performance based ratemaking ("PBR") plan.

6. The common equity ratios of other major Canadian natural gas distribution utilities support the reasonableness of FEI's requested capital structure. A 40 percent common equity ratio places FEI between the higher risk Gaz Métro (equivalent of 43.5 percent at its allowed return on common equity[5]) and lower risk utilities EGDI (36 percent), Union Gas (36 percent) and ATCO Gas (38 percent).[6]

7. FEI is in a capital intensive period at a time when the expiry of purchase money mortgages ("PMMs") and rising interest rates have the potential to constrain its ability to issue debt under its Trust Indenture at the current common equity ratio. A thicker common equity ratio will alleviate this effect, and will help to support FEI's credit rating. Maintaining a credit rating at the "A" level is important because it carries with it important benefits including the cost of borrowing, access to capital markets, and FEI's credit with its counterparties. A reduction in allowed common equity, particularly a reduction approaching what Dr. Booth has recommended, would have the double impact of constraining debt issuance capacity and making a rating downgrade likely.[7]

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4 *In the Matter of British Columbia Utilities Commission Generic Cost of Capital Proceeding (Stage 1)* Decision, Order No. G-75-13, May 10, 2013 ("GCOC Stage 1 Decision"), pp. 26-27.

5 Exhibit B-16, FEI Rebuttal Evidence, Rebuttal Evidence of Coyne, p. 39. Gaz Metro has an 8.90 percent return on 38.5 percent common equity. It is also allowed 7.5 percent deemed preferred equity at a return of 5.95 percent. This is equivalent to roughly 43.5 percent equity at Gaz Metro's current authorized ROE of 8.90 percent.

6 Exhibit B-1, Application, Appendix B, Evidence of Mr. Coyne, p. 101.

7 Exhibit B-16, FEI Rebuttal Evidence, p. 12.

(c) ROE

8. Mr. Coyne and Dr. Booth have each estimated ROE, and their evidence is discussed in Part Six of this Submission. The evidence demonstrates that a ROE of 9.5 percent on 40 percent common equity (Mr. Coyne's recommendation) meets the Fair Return Standard in the current market conditions and in light of FEI's overall business and financial risks.

9. Mr. Coyne has provided a strong analytical basis for his ROE recommendation of 9.5 percent. His recommendation is based on the results of carefully screened U.S. and Canadian proxy groups, fundamental analyses grounded in industry best practices and conventional methodologies, such as the Capital Asset Pricing Model ("CAPM") and Multi-Stage Discounted Cash Flow ("DCF"). He undertook Risk Premium Regression analyses. He has used inputs that are widely-accepted by industry practitioners; and has conducted his analyses in a transparent and objective manner. Further, Mr. Coyne conducted an in-depth review of the relative risk of the U.S. and Canadian proxy group companies to FEI to determine if an adjustment for differences in risk were warranted in his analysis. Mr. Coyne's analysis showed that FEI's proposed ROE and equity ratio is reasonable, if not conservative, relative to proxy group results in both the U.S. and Canada.

10. The Risk Premium Model takes centre stage in Dr. Booth's evidence, with a passing mention of DCF added to the executive summary only when he corrected an input error in his Risk Premium Model.[8] Dr. Booth's Risk Premium Model is, in essence, a traditional CAPM analysis adjusted to account for unreasonably low results in current market conditions. Approximately one-quarter of Dr. Booth's recommended ROE of 7.50 percent (175 basis points) represents two explicit opinion-based adjustments. The evidence discussed in Parts 3 and 6 demonstrates that the adjustments[9] are still insufficient to yield a reasonable result. At the oral

[8] Exhibit C7-7-1, Evidence of Dr. Booth (Blackline), p. 2.
[9] Exhibit C7-7-2, Evidence of Dr. Booth (Corrected), p. 2, para. 6.

hearing, Dr. Booth acknowledged having less faith in the amount of his “Operation Twist” adjustment that is so fundamental to his Risk Premium Model results.[10]

11. Dr. Booth performs a DCF analysis for a sample of eight U.S. utilities,[11] but his proxy screening methodology was not robust and his simplified assumptions guaranteed the results would be understated. Dr. Booth selected his proxy utilities with reference to the proxy groups of two experts that did not take part in this hearing and a review of the brief descriptions of utility activities listed in Google’s U.S. gas industry index. Dr. Booth’s sustainable growth DCF used the simplifying, and unrealistic, assumption that utility growth only comes from reinvestment of retained earnings. Utility growth estimates derived without accounting for injections of new equity ensured the resulting DCF estimates would be significantly understated.

12. Dr. Booth is, in essence, asking the Commission to set the allowed ROE at 7.5 percent in the absence of any credible model output – whether CAPM, DCF, Risk Premium Model or otherwise – as low as 7.5 percent. Mr. Coyne’s analysis should be accepted. A ROE of 9.5 percent on 40 percent common equity will meet the Fair Return Standard in the current market conditions and in light of FEI’s overall business and financial risks.

C. ORGANIZATION OF THE SUBMISSION

13. This Submission is organized as follows:

- ***Part Two - Legal Framework:*** A fair overall return is one that meets all three Fair Return Standard tests of comparability of returns, financial integrity, and capital attraction in all market conditions.

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[10] Tr 3, 542, ll. 12-24 (Booth).

[11] Dr. Booth also uses a DCF of the market to corroborate the Market Risk Premium in his Risk Premium Model. This is qualitatively different from calculating DCF results for comparable utilities.

- ***Part Three - Overall Assessment of the Parties' Respective Positions:*** There are a variety of reasons why FEI's request, supported by the expert evidence of Mr. Coyne, is more reasonable than the position advanced by Dr. Booth.

- ***Part Four - FEI's Business Risk:*** FEI's business risk is similar to what it was in 2012 and trending higher, meaning that FEI anticipates experiencing a steeper upward trend in certain risk categories in the near future that are not yet fully realized. The business risk assessment supports the requested 40 percent common equity ratio.

- ***Part Five - Other Factors Demonstrating Reasonableness of 40 Percent Common Equity Ratio:*** The capital structures of comparable utilities, and FEI's credit metrics and debt issuance requirements, also support a 40 percent common equity ratio.

- ***Part Six - The Fair ROE for FEI:*** Mr. Coyne's recommended ROE of 9.5 percent is based on robust corroborating analysis and should be accepted.

- ***Part Seven - Automatic Adjustment Mechanism***: The Commission should set the ROE with the expectation that it will remain in place for at least three years. Both experts consider that an AAM is unlikely to be triggered in any event.

PART TWO: THE FAIR RETURN STANDARD

14. Part Two addresses the Fair Return Standard, which is the applicable legal test. FEI make the following points:

(a) The Fair Return Standard is 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 - the comparable investment requirement, the financial integrity requirement and the capital attraction requirement - 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 application of the Fair Return Standard to FEI must account for the risk that FEI faces in achieving its return on and of its invested capital.

(d) Maintaining appropriate access to capital and credit ratings is important, particularly with FEI's significant capital investment.

A. THE THREE ELEMENTS OF THE LEGAL STANDARD

15. 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] (the "UCA").

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[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 (1923); *Federal Power Commission v. Hope Natural Gas Company,* 320 U.S. 591 (1944).

[13] R.S.B.C. 1996, c. 473.

The Commission recognized the Fair Return Standard in the 2006 ROE Decision,[14] the 2009 ROE Decision[15] and the GCOC Stage 1 Decision.[16]

16. In the 2009 ROE Decision, the Commission endorsed[17] the National Energy Board ("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).

17. The three requirements of the Fair Return Standard are separate and distinct, and each requirement must be satisfied. The Commission recognized in the 2006 ROE Decision,[18] 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.

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[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 ROE Decision"), pp. 8 and 48.

[15] *In The Matter of Terasen Gas Inc. Terasen Gas (Vancouver Island) Inc. Terasen Gas (Whistler) Inc. and Return On Equity And Capital Structure* Decision, G-158-09, December 16, 2009 ("2009 ROE Decision"), p. 15.

[16] GCOC Stage 1 Decision, pp. 6-12.

[17] 2009 ROE Decision, p. 15. This articulation of the Fair Return Standard was again referred to by the Commission in the GCOC Stage 1 Decision at pp. 7-8.

[18] 2006 ROE Decision, p. 48.

18. Mr. Coyne discussed the elements of the Fair Return Standard in his evidence, elaborating on the applicable market dynamics:[19]

> The assessment of whether the Fair Return Standard has been met requires an examination of the required returns by investors in like-risked enterprises. Investors must consider whether there might be alternative investment opportunities that would provide a better return for the same risk. This weighing of alternatives and the highly competitive nature of capital markets causes the prices of stocks and bonds to settle on a price that provides investors with a return that is adequate for the risks involved. Thus, for any given level of risk, there is a corresponding level of return that investors expect in order to take on that risk and not invest their money elsewhere. That return is referred to as the "opportunity cost" of capital or "investor required" return. In addition to setting the return at the "opportunity cost" of capital, a fair return must also be sufficient to maintain the financial integrity of the utility which requires a return sufficient to maintain credit metrics such that the utility can maintain a favorable bond rating to minimize debt costs and provide lenders assurance that the company's earnings are adequate to meet its fixed obligations. Finally, the return must be sufficient to attract incremental capital on reasonable terms and conditions, to the benefit of both investors and customers.

B. ESTABLISHING THE FAIR RETURN INDEPENDENTLY FROM RATE IMPACTS

19. The overall rate of return allowed for FEI must be based on its 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.

20. 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. Binding judicial authorities have referred to this obligation as "absolute".[20] In *British Columbia Electric Railway Co. v. Public Utilities Commission*, [1960] S.C.R. 837 at 848 (see also pp. 856-857) Locke J. stated:

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[19] Exhibit B-1, Application, Appendix B, Evidence of Mr. Coyne, pp. 10-11.

[20] *British Columbia Electric Railway Co. v. Public Utilities Commission*, [1960] S.C.R. 837 at 848 and 856-857; *TransCanada PipeLines Ltd. v National Energy Board*, 2004 FCA 149 ("TransCanada Decision"), paras. 35-36 and 43.

> 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 <u>that the obligation to approve rates which will give a fair and reasonable return is absolute.</u>
>
> [Emphasis added]

21. The Federal Court of Appeal has reiterated this point, emphasizing the importance of fair utility returns from the perspective of both utility investors and customers who can continue to obtain utility service from a utility operating on a financially strong and sustainable basis: [21]

> [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 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.

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[21] TransCanada Decision, paras. 6, 12 and 13.

> The impact on customers and ultimately consumers will be even more significant where there is insufficient competition in the market to provide adequate service.

22. In effect, the "absolute" requirement to provide a fair return necessitates determining FEI's capital structure and ROE with reference to the three criteria without considering potential short-term rate impacts. The Commission has applied this principle in its past decisions.

(a) The Commission's 2006 ROE Decision stated:[22]

> 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.

(b) In the 2009 ROE Decision, the Commission stated:[23]

> 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 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.

(c) The Commission similarly held in the GCOC Stage 1 Decision:[24]

> The Commission Panel confirms that the approval of rates to meet the [Fair Return Standard] is not optional for the Commission. In other words,

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[22] 2006 Decision, p. 8.

[23] 2009 Decision, p. 15.

[24] GCOC Stage 1 Decision, p. 12.

> the Commission has a duty to approve rates that will provide a reasonable opportunity to earn a fair return on invested capital, which is consistent with the previous ROE decisions and the Regulatory Compact.

23. Consistent with these determinations, the Fair Return Standard is not met by the lowest possible overall return. The Commission stated in the 2006 ROE Decision:[25]

> 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."

24. The conceptual underpinnings of the above determinations are that FEI's cost of capital is a legitimate cost of providing safe and reliable utility service. 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.

C. RELEVANCE OF RISK TO DETERMINATION OF FAIR RETURN

25. The application of the Fair Return Standard to FEI must account for the risk that FEI faces in achieving its expected return on and of its invested capital. The Commission has affirmed that "The assessment of the risks has a significant bearing on the application of the fair return standard and the determination of an appropriate common equity ratio for regulatory purposes."[26]

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[25] 2006 Decision, p. 8.

[26] GCOC Stage 1 Decision, pp. 24-25, citing 2009 ROE Decision, p. 17.

26. A utility's short-term risk is that it will not earn its allowed ROE in a given year.[27] A utility also 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.

27. In the GCOC Stage 1 Decision, the Commission determined that long-term risk should primarily be reflected in the capital structure of the utility, in consideration of investors' ability to recover their invested capital. It explained: "This is because if the underlying risk decreases, more debt can be issued; if it increases, the common equity ratio would increase resulting in less debt."[28]

28. FEI's business risk is addressed in Part 4 of these Submissions.

D. MAINTAINING CREDIT RATING IS IMPORTANT

29. In the context of debt financing, FEI's ability to attract capital and maintain its financial integrity is reflected in its credit rating. In the GCOC Stage 1 Decision, the Commission:

(a) Accepted that continued access to debt capital at an attractive price is an important element which benefits the shareholder and may benefit the customer;[29]

(b) Supported the maintenance of an "A" category credit rating to the extent that it could be maintained without going beyond what is required by the Fair Return Standard.[30]

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[27] Exhibit B-7, AMPC-FEI IR 1.2.1; Exhibit B-9, BCUC-FEI IR 1.4.1.

[28] GCOC Stage 1 Decision, p. 24.

[29] GCOC Stage 1 Decision, p. 50.

30. FEI's Moody's rating, the lower of the two ratings, is at A3. Maintaining a rating at the "A" level is important for avoiding higher-cost BBB-rated debt, for which a limited market exists in Canada. This is particularly important in light of the number of large FEI projects which will require debt financing in the coming years. Part 5 of these Submissions discusses in further detail how a common equity ratio of 40 percent will help to maintain the current rating, and the importance of doing so.

E. CONCLUSION REGARDING THE FAIR RETURN STANDARD

31. The Commission's role in this proceeding is to set FEI's ROE and capital structure based on the three criteria of the Fair Return Standard. The Fair Return Standard is an absolute requirement. A fair return is to be determined independent of rate impacts and with consideration of the risk facing the utility. As financial integrity and capital attraction are included in the Fair Return Standard criteria, the Commission should continue to support the maintenance of an "A" category credit rating for FEI.

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[30] GCOC Stage 1 Decision, p. 50.

PART THREE: OVERALL ASSESSMENT OF THE PARTIES' RESPECTIVE POSITIONS

32. The Fair Return Standard is ultimately concerned with overall allowed utility returns. The overall result must make sense in light of the totality of the evidence. There are a number of factors that speak to the overall reasonableness of FEI's request, and demonstrate that Dr. Booth's recommendations are counterintuitive and unsupported by his own empirical assessment. The factors discussed in this Part include:

(a) First, FEI's request is based on and supported by the expert evidence of Mr. Coyne, a cost of capital expert with extensive industry knowledge, who reached his recommendations using a robust and transparent methodology.

(b) Second, Dr. Booth's favoured Risk Premium Model output has increased since 2012, providing directional support for an increase in the current allowed ROE.

(c) Third, Mr. Coyne's recommendations make sense in the context of Canadian distribution utility returns, while Dr. Booth's recommendations do not.

(d) Fourth, the output of Dr. Booth's favoured Risk Premium Model does not support his recommendation of 7.50 percent:

(i) The correction that Dr. Booth made to his evidence should have, both intuitively and based on Dr. Booth's own underlying analysis, prompted him to revise his recommendation upwards to 8.13 percent.

(ii) Dr. Booth's own data confirms that his "Operation Twist" adjustment is insufficient to accomplish its stated purpose.

(e) Fifth, Dr. Booth's rejection of CAPM and conditional CAPM results, combined with his admission that he now has "less faith" in the "Operation Twist" adjustment designed to rectify his low CAPM results, casts significant doubt on the usefulness of his Risk Premium Model.

(f) Sixth, Dr. Booth's practice of recommending the same overall return for utilities of widely varying risks, irrespective of market conditions, is not a reasonable approach.

(g) Seventh, Dr. Booth's initial suggestion that the output of the AAM confirmed FEI's allowed ROE should be reduced was inconsistent with his own evidence and, in any event, updated data produce the opposite results.

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(i) Ninth, Dr. Booth's ranking of the relative riskiness of Canadian gas distribution utilities changes depending on the jurisdiction where he is testifying, with the common denominator being that the riskiness of the utility under review is minimized relative to other utilities.

A. MR. COYNE'S ROBUST AND TRANSPARENT ANALYSIS

33. The Fair Return Standard and the Stand Alone Principle serve as a touchstone for Mr. Coyne's analysis and recommendations. He conducted his examination objectively and transparently.

34. Mr. Coyne selected both Canadian and U.S. proxy groups and compared those companies' risks to the risks of FEI. There is a limited pool of Canadian companies, making a U.S. analysis important (Dr. Booth also used U.S. companies). Mr. Coyne's screening process considered factors such as credit ratings, payment of dividends, availability of growth rate estimates, the extent to which the company is engaged in regulated natural gas distribution operations, and whether the company was involved in a merger. In this way, Mr. Coyne ensured that his proxy company results would reflect similar risks as FEI.

35. He presented three primary analyses for the U.S. and Canadian proxy groups: CAPM, Constant Growth DCF, and Multi-Stage DCF. These analyses used industry-accepted inputs for dividend yields, growth rates, risk free bond yields, beta and market risk premiums. Mr. Coyne also considered a risk premium analysis, and an "alternative CAPM" analysis to corroborate and supplement his results.

36. Mr. Coyne analyzed differences in the U.S. and Canadian capital markets. His cost of capital analyses moderate any differences between U.S. and Canadian capital markets in several ways. In the CAPM analysis, he has used a forecast Canadian risk free rate and a market risk premium derived by a combination of Canadian and U.S. market inputs. He has made no upward adjustment for the higher equity ratios of the U.S. proxy group, despite empirical analysis indicating that such an adjustment would have added 95 to 119 basis points to his U.S. ROE results.[31]

37. Mr. Coyne conducted an in-depth analysis of business and financial risks of FEI and each of the proxy group companies. Specifically, Mr. Coyne analyzed the operating risks, gas supply and infrastructure risk, gas price levels and volatility, volume/demand risk and political and regulatory risk of FEI and each of the proxy group companies. He also examined each company's financial ratios and credit metrics. He conducted this analysis to verify the comparability of his U.S. and Canadian proxy groups and to determine whether a risk adjustment was warranted for differences between FEI and the proxy groups. Mr. Coyne employed his considerable industry knowledge in performing this assessment.

38. Mr. Coyne placed equal weight on the multi-stage DCF and CAPM results as the basis for his recommended ROE for FEI. Although he has more faith in the DCF results, his equal weighting reflected the Commission's weighting in the GCOC Stage 1 Decision. Mr. Coyne placed no reliance on his constant growth DCF analysis in consideration of the Commission's stated preference in the GCOC Stage 1 Decision to limit reliance of analysts' forecasts to a

[31] Exhibit B-1, Application, Appendix B, Evidence of Mr. Coyne, p. 102, ll. 19-22.

multi-stage DCF application.[32] He ultimately set his ROE recommendation at the low end of the range of proxy group ROE results. Mr. Coyne concluded that 9.5 percent (calculated on 40 percent equity) meets the standards of a fair return.

39. FEI submits that there is every reason to find that Mr. Coyne's analysis is credible and his recommendations reasonable.

B. DR. BOOTH'S FAVOURED RISK PREMIUM MODEL OUTPUT IS HIGHER NOW THAN IT WAS IN 2012

40. Dr. Booth's favoured Risk Premium Model output has increased from what it had been in 2012, suggesting that FEI's cost of capital has increased. In the GCOC Stage 1 Proceeding, Dr. Booth's equivalent adjusted CAPM produced a fair ROE range of 6.95 percent to 8.00 percent.[33] Dr. Booth's current "fair ROE" range is 7.25 percent to 8.30 percent - 30 basis points higher. As discussed in Section D below, Mr. Coyne has observed that, based on the way Dr. Booth arrived at his current "Operation Twist" adjustment, Dr. Booth's current Risk Premium Model results should have been 72 to 144 basis points higher.[34] The directional increase in Dr. Booth's own calculations relative to 2012 is consistent with Mr. Coyne's evidence that a fair ROE and FEI's overall cost of capital are higher than what is suggested by the current overall allowed return.

C. RECOMMENDATIONS RELATIVE TO CANADIAN UTILITY RETURNS

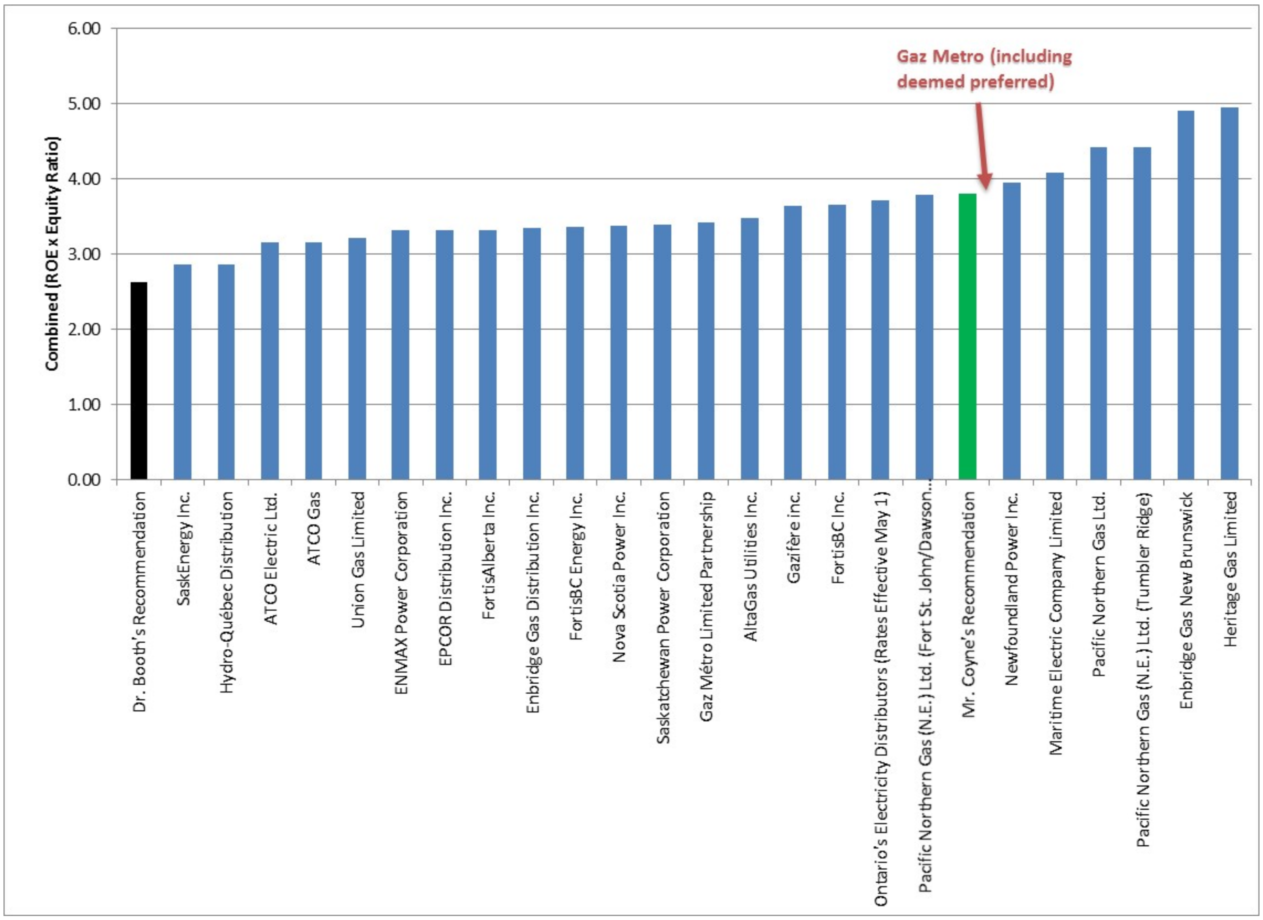
41. FEI's requested ROE and common equity ratio, supported by the expert evidence of Mr. Coyne, is reasonable in terms of the comparability of returns component of the Fair Return Standard. The outcome advocated by Dr. Booth and interveners is unreasonably low relative to other Canadian utilities.

[32] GCOC Stage 1 Decision, at p. 71.

[33] Exhibit B-26, p. 47.

[34] Exhibit B-16, FEI Rebuttal Evidence, Rebuttal Evidence of Mr. Coyne, p. 35.

42. Mr. Coyne included the following figure in his Rebuttal Evidence.[35] The figure depicts the relative position of Canadian distribution utilities when their respective allowed ROE is multiplied by their allowed common equity ratio. It places the respective recommendations of Dr. Booth and Mr. Coyne in that context.



43. The figure demonstrates two points:

(a) First, Mr. Coyne's recommendation puts FEI in the "middle of the pack" in terms of Canadian distribution utility returns. FEI is placed lower than Gaz Métro (when appropriately accounting for Gaz Métro's deemed preferred shares[36]), which makes sense given Gaz Métro's higher risk. FEI is placed higher than ATCO

[35] Exhibit B-16, FEI Rebuttal Evidence, Rebuttal Evidence of Mr. Coyne, pp. 6-7.

[36] Exhibit B-16, FEI Rebuttal Evidence, Rebuttal Evidence of Mr. Coyne, pp. 7, 38-39.

Gas, Union Gas and EGDI, which also makes sense given that those utilities are lower risk than FEI.[37]

(b) Second, Dr. Booth's recommendations, if adopted, would make FEI a significant outlier, placed materially below every other Canadian gas and electric distributor in the figure.[38]

44. The story is the same when capital structure and ROE are considered separately. FEI's proposed 40 percent common equity ratio falls between Gaz Métro (43.5 percent when appropriately accounting for Gaz Métro's deemed preferred shares[39]) and the lower risk gas distribution utilities.[40] Mr. Coyne's recommended ROE is also in line with other comparable utilities.[41] Dr. Booth, by contrast, is recommending both the lowest ROE, and the lowest common equity ratio, among Canadian gas or electric distributors.[42]

45. Dr. Booth's concluding section of his evidence justified his recommended common equity ratio of 35 percent with a reference to the 35 percent common equity ratio of "a distributor in Quebec".[43] The distributor is Hydro Québec Distribution, which on any reasonable assessment is a much lower risk utility than FEI.[44] Hydro Québec's dominance in Québec is the reason why Dr. Booth singles out Gaz Métro as the highest risk among the major natural gas distributors as deserving of higher common equity ratio.[45]

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[37] Exhibit B-1, Application, Appendix B, Evidence of Mr. Coyne, pp. 84-85; Exhibit B-16, FEI Rebuttal Evidence, Rebuttal Evidence of Mr. Coyne, pp. 38-40.

[38] Exhibit B-16, FEI Rebuttal Evidence, Rebuttal Evidence of Mr. Coyne, pp. 6-7.

[39] Exhibit B-16, FEI Rebuttal Evidence, Rebuttal Evidence of Mr. Coyne, pp. 38-39.

[40] Exhibit B-1, Application, Appendix B, Evidence of Mr. Coyne, pp. 101.

[41] Exhibit B-16, FEI Rebuttal Evidence, Rebuttal Evidence of Mr. Coyne, p. 6-7; Exhibit B-1, Application, Appendix B, Evidence of Mr. Coyne, p. 101.

[42] Exhibit B-16, FEI Rebuttal Evidence, Rebuttal Evidence of Mr. Coyne, pp. 6-7; Tr 3, 516, l. 6 - 517, l. 9 (Booth).

[43] Exhibit C7-7-2, Evidence of Dr. Booth (Corrected), pp. 86-87.

[44] Exhibit B-16, FEI Rebuttal Evidence, Rebuttal Evidence of Mr. Coyne, pp. 38-39.

[45] Exhibit C7-7-2, Evidence of Dr. Booth (Corrected), pp. 77-78.

D. THE OUTPUT OF DR. BOOTH'S FAVOURED MODEL DOES NOT SUPPORT HIS RECOMMENDED ROE

46. Dr. Booth's favoured Risk Premium Model does not support his recommended ROE of 7.50 percent. The "fair ROE" produced by the Risk Premium Model, post-correction, is above Dr. Booth's recommended ROE.[46] Dr. Booth's correction should have translated to a higher recommendation. The discrepancy between Dr. Booth's Risk Premium Model output and his lower recommendation would have been larger had his "Operation Twist" adjustment reflected his own logic and data.

(a) Dr. Booth's Correction Should Have Translated to a Higher Recommendation

47. Dr. Booth identified shortly after filing his evidence that he had misread a table and had thus used the wrong long Canada bond yield number in his analysis. AMPC filed Dr. Booth's corrected evidence one week later, indicating that "this error does not affect his overall conclusions, but does affect some of the underlying calculations, and he has therefore corrected his evidence".[47] The correction, given its nature, should have affected Dr. Booth's overall conclusions. The fact that Dr. Booth did not revise his recommended ROE upwards to 8.13 percent to reflect the changes in the underlying Risk Premium Model calculations underscores the unreasonableness of his ROE recommendation.

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[46] Exhibit C7-7-1, Evidence of Dr. Booth (Blackline), p. 58.

[47] Exhibit C7-7-1, Evidence of Dr. Booth (Blackline), cover letter and p. 2.

Intuitive Result Was to Increase Recommended ROE to 8.13 Percent

48. The blacklined changes on page 58 of Exhibit C7-7-1 illustrate why Dr. Booth's correction intuitively ought to have affected his recommended ROE:

> **A.** I would judge a fair ROE for 2016 to be in a range ~~6.62-7.67~~7.25-8.30% for 2016. My estimates are based on the following:
>
> **Risk Premium**

Base LTC forecast:	~~2.12~~2.75%
Normal utility risk premium:	2.25%-3.30%
Issue costs:	0.50%
Normal Fair ROE	~~5.40~~6.03%
Credit Spread Adjustment	0.45%
Operation Twist Adjustment	1.30%
Fair ROE:	**~~7.15~~7.78%**

49. The correction to the long Canada bond yield involved an upward adjustment of 63 basis points. The change, by virtue of the nature of the model, flowed through to the "Normal Fair ROE", increasing it by 63 basis points.[48] The same is true for the "Fair ROE" line item, increasing it by 63 basis points to 7.78 percent. The 63 basis point increase also flowed through to both the low and high ends of Dr. Booth's range for "a fair ROE for 2016", making the range 7.25 percent to 8.30 percent (instead of 6.62 percent to 7.67 percent).

50. The fact that Dr. Booth's 63 basis point correction had a corresponding 63 basis point impact on his range for a "fair ROE for 2016" demonstrates Dr. Booth's primary reliance on his Risk Premium Model. Dr. Booth's executive summary, as it appeared prior to the correction, reemphasizes the full extent of Dr. Booth's reliance on the output of the Risk Premium Model. The paragraph in which Dr. Booth discussed ROE was originally devoted

[48] Exhibit C7-7-1, Evidence of Dr. Booth (Blackline), p. 58.

exclusively to the Risk Premium Model. The following quote from the blackline version shows how it was later edited to add reference to DCF:[49]

> 6. For 2016 I continue to recommend an ROE of 7.50% for a benchmark utility. This recommendation ~~includes~~reflects a 0.45% adjustment for credit spreads~~ and~~, 1.3% for the impact of global bond buying programs and evidence from DCF equity costs. For 2017 and later years I recommend the BCUC continue with its ROE adjustment model with the 3.80% floor to the long Canada bond yield. However, I do not expect this floor to be triggered over the next three years.

51. Intuitively, since Dr. Booth admitted nothing had changed during the week between the filing of his original and corrected evidence,[50] his 63 basis point correction should have also caused Dr. Booth's recommendation of 7.50 percent to increase by 63 basis points to 8.13 percent.

Intuitive Result Confirmed By Dr. Booth's Underlying Analysis

52. The intuitive conclusion that Dr. Booth should have increased his 7.5 percent recommended ROE by 63 basis points when he corrected his error is confirmed by a careful examination of how Dr. Booth had originally justified a recommended ROE that (pre-correction) had been 35 basis points higher than the middle of the range of the "fair ROE" output of his Risk Premium Model.

53. Dr. Booth had arrived at his 130 basis point "Operation Twist" adjustment based on the 2015 average spread between the S&P TSX preferred shared index spread and A-rated bond spread. The 130 basis points had originally (pre-correction) resulted in a mid-range "fair ROE" of 7.15 percent, or 35 basis points **below** his recommended ROE of 7.5 percent. He justified this 35 basis point increase as follows: [51]

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[49] Exhibit C7-7-1, Evidence of Dr. Booth (Blackline), p. 2.
[50] Tr 3, 524, ll. 5-22 (Booth).
[51] Exhibit C7-7, Evidence of Dr. Booth (Original), p. 50, ll. 10-12.

> Taking into account the current yields on utility preferred shares, which are part of shareholder's equity, but rank ahead of the common shareholders I would tend to be conservative and recommend the same 7.5% as in 2012.

54. Dr. Booth's reference to the "current yields on utility preferred shares" relates to yields in December 2015 and/or January 2016 when Dr. Booth prepared his evidence. According to the data provided by Dr. Booth in response to BCUC-AMPC IR 13.2 and 13.4,[52] the average preferred shares/A-bonds spread in December 2015 was 170 basis points, or 40 basis points higher than the average of 130 basis points for all of 2015. Those additional 40 basis points (representing an implied increase in the "Operation Twist" adjustment from 130 basis points to 165 basis points), in effect, filled the gap between the model output of 7.15 percent and his recommended ROE of 7.5 percent (the math actually yields 7.55 percent; Dr. Booth rounded down five basis points).

55. Once Dr. Booth had identified and corrected his long Canada bond error, his model and adjustments produced a "fair ROE" range of 7.25 percent to 8.3 percent with mid-range "fair ROE" of 7.78 percent - 28 basis points **above** his recommended ROE of 7.5 percent. This result was impossible to reconcile with his original logic.

56. Dr. Booth shifted his emphasis from the higher **absolute** yields in December / January to the **volatility** of preferred share yields to justify a decrease from the model output of 7.78 percent to his recommended ROE of 7.5 percent (which can also be viewed as an implicit reduction in "Operation Twist" adjustment from 130 basis points to 102 basis points). This shift in emphasis is evident from his addition of the words "volatility of" to the same passage just discussed when he made his correction:[53]

> Taking into account the <u>volatility of</u> current yields on utility preferred shares, which are part of shareholder's equity, but rank ahead of the common shareholders I would tend to be conservative and recommend the same 7.5% as in 2012.

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[52] Exhibit C7-9, BCUC-AMPC IR.

[53] Exhibit C7-7-1, Evidence of Dr. Booth (Blacklined), p. 50.

[Underlining in blacklined original]

57. There are four problems with Dr. Booth's shift in emphasis. First, Dr. Booth's characterization of his recommendation as "conservative" in the above passage no longer made sense after his correction and edit. If being conservative had been his original intent, he appears to have abandoned it once he discovered his error.

58. Second, as indicated previously, only one week had lapsed between the original filing and the corrected filing. The data on preferred share yields was unchanged, both in terms of absolute levels and volatility. The only thing that had changed was Dr. Booth's discovery of his error.

59. Third, Dr. Booth's original (pre-correction) analysis was already using the mean and median for 2015, which are measures of central tendency that minimize and address volatility. As shown in the table below, the mean and median of preferred shares/A-bonds spread in the year 2015 were (and remained after the discovery of the error) very close to 130 basis points.

Statistical Measures of Preferred Shares and A-rated Bonds Spread in the Year 2015[54]

Mean Spread	Median Spread	Minimum	Maximum
129	130	71	205

60. In other words, Dr. Booth had little statistical justification to reduce the "Operation Twist" adjustment due to the volatility of preferred share yields, since mean and median both demonstrate the 130 basis points is representative of central tendency of spreads in the year 2015. This does not mean that 130 basis points is the correct amount (see the next section for why it is understated); it simply means that Dr. Booth's decision not to increase his recommendation was illogical given how he derived the "Operation Twist" adjustment.

[54] Based on the data provided in the response to Exhibit C7-9, BCUC-AMPC IR 13.2 and 13.4.

61. Fourth, as mentioned above, Dr. Booth's decision not to flow the correction through to his recommendation implicitly reduced his "Operation Twist" adjustment from 130 basis points to 102 basis points. However, Dr. Booth states in his evidence (even after the correction) that 130 basis points is the minimum adjustment to account for current market conditions:[55]

> Since the US embarked on its third round of quantitative easing the traditional spread of preferred share yields over both government of Canada and generic A rated corporate bonds has changed. This indicates that current long Canada bond yields are **at least 1.30% too low** based on traditional, spreads confirming my real bond yield model that indicates an even higher 2.5%".
>
> [Emphasis added]

62. Based on this statement alone, Dr. Booth's recommended ROE of 7.5 percent must be understated by "at least" 28 basis points (130 basis points - 102 basis points = 28 basis points). As discussed next, the evidence suggests the extent of the understatement well exceeds 28 basis points.

(b) Data Suggests "Operation Twist" Adjustment is Too Small

63. Dr. Booth has rejected the results of the traditional CAPM, as well as his "conditional CAPM" estimates that include an upward adjustment of 45 basis points.[56] Dr. Booth's Risk Premium Model[57] adjusts the "conditional CAPM" results for the record low interest rate environment by incorporating an additional 130 basis point "Operation Twist" adjustment. Since the "Operation Twist" adjustment is the only feature that differentiates his Risk Premium Model from the models he has rejected, a reasonable "Operation Twist" adjustment is an essential precondition to the reliability of the Risk Premium Model output. FEI submits that the Commission can place limited reliance on Dr. Booth's quantification of his adjustments. Every indication is that his "Operation Twist" adjustment is much too small, and his recommended ROE is correspondingly understated.

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[55] Exhibit C7-7-2, Evidence of Dr. Booth (Corrected), p. 1, ll. 23-27.

[56] Exhibit C7-11.

[57] Tr 3, 520, ll. 18-23 (Booth).

64. Mr. Coyne examined Dr. Booth's "Operation Twist" adjustment in his rebuttal evidence.[58] He concluded that, based on Dr. Booth's own characterization of 2004 as a "normal" year for bonds and preferred shares yields and a comparison of preferred shares/A-bonds spread in 2004 with the current spreads, the correct adjustment to forecast Long Canada bond yields should be in the range of 274 basis points. The manner in which Mr. Coyne performed this assessment of the magnitude of the "Operation Twist" adjustment was conceptually similar to how Dr. Booth determined his credit risk adjustment of 45 basis points, i.e., comparing what he calls typical average spread for the business cycle with current spreads and not simply comparing 2012 spreads with 2015 spreads.

65. Mr. Coyne also examined Dr. Booth's regression model. He calculated the "Operation Twist" adjustment to be 250 basis points as Dr. Booth's regression model indicated that the government bond yield should be approximately 5.25 percent, 250 basis points higher than Dr. Booth's forecast long Canada bond yield of 2.75 percent.[59]

66. These results are more than double Dr. Booth's explicit 130 basis point "Operation Twist" adjustment. They are at least 2.5 times Dr. Booth's implicit 102 basis point post-correction "Operation Twist" adjustment. These figures would bring Dr. Booth's Risk Premium Model results up to approximately 8.45 percent on the low end and 9.74 percent on the high end. The mid-point is 9.10 percent.

E. LOSING FAITH IN THE "OPERATION TWIST" ADJUSTMENT MEANS LOSING FAITH IN RISK PREMIUM MODEL

67. Dr. Booth's rejection of CAPM and conditional CAPM results, combined with his admission that he now has "less faith" in the "Operation Twist" adjustment, casts significant doubt on the usefulness of his Risk Premium Model.

[58] Exhibit B-16, FEI Rebuttal Evidence, Rebuttal Evidence of Mr. Coyne, pp. 34-35.
[59] Exhibit B-16, FEI Rebuttal Evidence, Rebuttal Evidence of Mr. Coyne, pp. 33-34.

68. In his Opening Statement, Dr. Booth stated that he "specifically reject[s] both the CAPM and the conditional CAPM estimates".[60] Dr. Booth's Risk Premium Model is still based on the CAPM. The only distinguishing feature is his "Operation Twist" adjustment, i.e., he has added the 130 basis point "Operation Twist" adjustment to his already adjusted conditional CAPM results with the intention of accounting for the capital market conditions that are distorting the CAPM results.

69. During cross-examination, Dr. Booth indicated that he now has less faith in the reliability of the data he used to estimate his "Operation Twist" adjustment, and the size of the adjustment itself:[61]

> There's a huge amount of liquidity in the global capital markets, and that means to try to get a handle on what is the fair long Canada rate to trade off in equilibrated risk and return is incredibly difficult. I've tried to do it. **I now have less faith in the preferred stock yield that's provided by the Toronto stock exchange because of the composition of that index.** And I've gone out of my way to look at individual preferred share issues issued by utilities to try and get a handle on what's happening.[62]
>
> **So I have less faith in the magnitude of the Operation Twist Adjustment, which is absolutely correct.**
>
> [Emphasis added]

70. Given how fundamental the "Operation Twist" adjustment is to Dr. Booth's analysis -- it is the only thing that differentiates his Risk Premium Model from the "conditional CAPM" that he rejected in his Opening Statement[63] -- Dr. Booth's doubt about the magnitude of the "Operation Twist" adjustment means that he also doubts the output of his favoured Risk Premium Model.

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[60] Exhibit C7-11.

[61] Tr 3, 542, ll. 12-24 (Booth).

[62] It should be noted that there is no record of any analysis for individual utilities preferred shares in Dr. Booth's filed evidence and this issue was raised for the first time in the oral hearing.

[63] Exhibit C7-11.

F. SAME ROE AND CAPITAL STRUCTURE FOR VARIOUS UTILITIES IN VARYING CONDITIONS IS NOT REASONABLE

71. Dr. Booth has recommended a 7.5 percent ROE in every case in which he has testified about a gas or electric distribution utility since August 2012.[64] Dr. Booth marries this approach with a generic 35 percent common equity ratio for almost all distribution utilities, whether electric or gas. Dr. Booth's uniform recommendations persist irrespective of changes in interest rates, credit spreads, business cycle, market volatility, differing utility risk profiles and growth prospects. All of these factors affect the cost of capital.[65] Dr. Booth's "one size fits all" approach is not credible, and his generic 7.5 percent ROE on 35 percent common equity has never been accepted by a Canadian regulator.

G. AAM AS A DIRECTIONAL INDICATOR

72. Dr. Booth opened his written evidence by suggesting that the output of the AAM "does indicate the direction in FEI's allowed ROE and that this should be down from the current 8.75%, not up to the 9.50% recommended by Concentric."[66] He flagged this point as "useful to present"[67] and "important".[68] Dr. Booth's argument is unpersuasive and updating the AAM inputs yielded the opposite (i.e., upward) result.

(a) Internal Inconsistency in Dr. Booth's Evidence

73. Dr. Booth's suggestion that the output of the AAM would indicate a decrease in FEI's allowed ROE was inconsistent with his own evidence regarding the cause of the decline in long Canada bond yields (one of the two factors in the AAM). Dr. Booth repeatedly recognized

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[64] Tr 3, 548, ll. 21-26 (Booth); Exhibit B-16, FEI Rebuttal Evidence, Rebuttal Evidence of Mr. Coyne, pp. 7-8. Since 2012, Dr. Booth has testified in respect of NSPI, FEI, ATCO Pipelines, Hydro Québec Distribution and Hydro Québec Transmission.

[65] Exhibit B-16, FEI Rebuttal Evidence, Rebuttal Evidence of Mr. Coyne, p. 8.

[66] Exhibit C7-7-2, Evidence of Dr. Booth (Corrected), p. 5.

[67] Exhibit C7-7-2, Evidence of Dr. Booth (Corrected), p. 4.

[68] Exhibit C7-7-2, Evidence of Dr. Booth (Corrected), p. 5.

in his evidence that the decline in long Canada bond yields since 2012 is the product of monetary policy, not investors trading of risk and reward. Mr. Coyne agrees.[69]

74. Dr. Booth described what is occurring with long Canada bond yields as follows:[70]

> What is important to note is that interest rates are not, and probably will not for the foreseeable future, be set by private investors. Instead, they are being set by what has been termed the "global policy maker." As a result, forecasting interest rates for a small country like Canada in a global financial system depends critically on central bank decisions elsewhere.

75. He also described it as follows:[71]

> However, the flood of government debt is being bought in part by non-residents due to the impact of loose monetary policy elsewhere in the world. Once an indicator (dummy) variable is added for the years since 2010, the 2014 real yield estimate is reduced by 2.53%. What this indicates is that the current and forecast long Canada bond yields are severely depressed below where they would have been had Canada remained partially segmented from external events. The model also indicates that current bond yields are not being determined by ordinary investors trading off risk versus return as assumed in standard risk premium models.

76. He also stated:[72]

> However, although the US bond buying program finished in 2014, new programs were started or expanded elsewhere and a huge amount of government debt has been taken off bond markets around the world. The result is that long Canada bond yields have backtracked and decreased from 3.0% in October 2013 to the current level of barely over 2.0%, while the A spread has increased from 1.66% to the current level of 1.90% and the preferred spread has increased from 2.01% to 3.78% and been highly volatile.

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[69] Exhibit B-16, FEI Rebuttal Evidence, Rebuttal Evidence of Mr. Coyne, p. 3; Exhibit C7-7-2, Evidence of Dr. Booth (Corrected), pp. 41-42.

[70] Exhibit C7-7-2, Evidence of Dr. Booth (Corrected), p. 24.

[71] Exhibit C7-7-2, Evidence of Dr. Booth (Corrected), p. 45.

[72] Exhibit C7-7-2, Evidence of Dr. Booth (Corrected), p. 49.

77. The influence of monetary policy on long Canada bond yields is reflected in Dr. Booth's decision to incorporate an "Operation Twist" adjustment, as well as his position that the allowed ROE should not change until the long Canada bond yield reaches 3.8 percent.[73]

(b) Updating Data Yields Opposite Result By Virtue of Rising Credit Spreads

78. By the time of the oral hearing, Dr. Booth's logic actually yielded the opposite result because of the significant increase in credit spreads since he filed his written evidence.[74] Long Canada bond yields have decreased by 30 basis points since August 2012, but credit spreads have increased by 58 basis points. On Dr. Booth's logic, since the increase in credit spread is greater than the decrease in long Canada bond yields, the data indicates that the ROE should increase relative to 2012, not decrease.[75]

79. Credit spreads[76] are an indicator of investor risk aversion regarding utility equity. They are an input in the approved AAM because when combined with the risk free rate they provide a proxy for the utility bond yield. The increase in credit spreads since 2012 are indicators of a higher cost of utility equity. Mr. Coyne explained:[77]

> When the credit spread increases either default risk is perceived to be higher or investors are becoming more risk averse. Either scenario results in higher capital costs in relation to the risk free rate. I agree that the total interest rate paid is an important consideration. However, the credit spread quantifies the compensation investors demand for making the investment in relation to the risk-free investment. If the credit spread is increasing, investors are demanding more compensation and this points to higher risk relative to the comparative period. This is a very important point and should not be dismissed or overlooked as Dr. Booth suggests. In my opinion, investors are growing more risk averse in the wake of the sluggish Canadian economy, troubles in China and volatile equity

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73 Tr 3, 539, ll. 21-24 and 557, ll. 7-10 (Booth). "And my recommendation to this Commission is exactly the same as it was three years ago, don't change the ROE unless the forecast long Canada bonds yield gets above 3.8 percent."

74 Tr 3, 552, ll. 5-12 (Booth).

75 Exhibit B-16, FEI Rebuttal Evidence, Rebuttal Evidence of Mr. Coyne, p. 9.

76 Credit spreads are the difference in yield between any type of bond, and a government bond of the same maturity.

77 See Exhibit B-16, FEI Rebuttal Evidence, Rebuttal Evidence of Mr. Coyne, pp. 5, 9, 11-12.

> markets, and are demanding more compensation for making equity investments (including utility investments) despite the fact that the general trend in bond yields has been downwards.

(c) Dr. Booth's Evidence on Direction of Cost of Capital

80. Dr. Booth recommends a ROE of 7.50 percent on a common equity ratio of 35 percent. Both values are much lower than the current approved ROE and capital structure of 8.75 percent and 38.5 percent. During cross examination, however, Dr. Booth stated that he did not think the ROE should go down:[78]

> And my recommendation to this Commission is exactly the same as it was three years ago, don't change the ROE unless the forecast long Canada bonds yield gets above 3.8 percent.

81. In the context of discussing his original position that the AAM indicated a downward movement in ROE, he stated:[79] "I can read it, I wrote it. I know exactly what it says. And the fact is it does indicate the direction is down. **Do I recommend that it go down? No.**" [Emphasis added]

82. FEI expects that, in both of the above quotations, Dr. Booth was referring to a decline from the 7.50 percent that he had recommended in the GCOC proceeding. However, the Commission had not approved his recommendation in GCOC Stage 1 Decision. Dr. Booth's evidence regarding the continuity in FEI's cost of capital would suggest that the ROE should be no lower than the current allowed ROE of 8.75 percent. His recommended reduction of 125 basis points is a significant departure from that.

H. DR. BOOTH'S RECOMMENDATION AT ODDS WITH CAPITAL MARKETS EVIDENCE

83. Dr. Booth's recommendation to reduce FEI's allowed ROE by 125 basis points and reduce the common equity ratio to the lowest among any major distribution utility in

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[78] Tr 3, 539, ll. 21-24 (Booth).

[79] Tr 3, 551, ll. 4-7 (Booth).

Canada is difficult to reconcile with his view of market conditions, which should be neutral to (if not putting upward pressure on) utility cost of capital.

84. Dr. Booth's evidence is that nothing has materially changed since 2012 in the capital markets.[80] Dr. Booth notes in the opening sentence of his evidence: "The Canadian economy has stalled somewhat as resource prices have collapsed following a slowdown in China and with them the value of the Canadian $."[81] Dr. Booth goes on to note:[82]

> It is three years since the BCUC last reviewed its benchmark ROE and the capital structure of FEI. Over this period we have very much been in a holding pattern waiting for the US and Europe to work their way through the after effects of their Great Recessions. Further, just as they have proceeded to recover, Chinese growth has slowed and sent jitters through commodity markets and triggered a stock market correction.
>
> …
>
> The Canadian economy is suffering from two effects. On the one hand it is adjusting to the drop in commodity prices, which is hurting the materials and energy sector. On the other hand, it is being helped by growth in the U.S and a strengthening of traditional manufacturing, particularly in central Canada. Three years ago the Bank of Canada anticipated that the remaining spare capacity in the economy would be used up by mid-2015, while the financial system was firing on all cylinders. The slowdown in China has deferred this growth forecast and caused serious problems in the resource sector. As a result, we are still a couple of years away from the peak of the business cycle with plenty of growth to come. Whether we can use up these resources depends on continued growth in the U.S and whether the slowdown in China causes more problems. Of particular concern is whether there are significant non-performing loans to the Canadian resource sector resulting from the lower commodity prices.

85. While Dr. Booth sees continuity from 2012 in today's stalling economy and "market jitters", his current description of conditions is far less optimistic in tone than his evidence in 2012 had been. In the GCOC proceeding, Dr. Booth had described a financial system "firing on all cylinders" and an economic upswing that would resolve the remaining

[80] Exhibit C7-7-2, Evidence of Dr. Booth (Corrected), p. 35.

[81] Exhibit C7-7-2, Evidence of Dr. Booth (Corrected), p. 1.

[82] Exhibit C7-7-2, Evidence of Dr. Booth (Corrected), pp. 3, 33-34.

output gap in short order. Dr. Booth's opening statement in the 2012 GCOC oral hearing had encapsulated that positive outlook:[83]

> Times have now changed. According to the Governor of the Bank of Canada **our financial system is now "firing on all cylinders"** and the limited output gap that remains is expected to disappear in **2013**.
>
> [Emphasis added]

86. Dr. Booth had reemphasized that positive outlook at the 2012 oral hearing. He had stated, for instance:[84]

> If I'd been asked to put in testimony on ATCO Gas **in 2011, I would have told the AUC that the impact of the financial crisis had disappeared within Canada, that the Canadian financial system was functioning perfectly normally**, that we'd recovered all of our jobs, and the need for higher common equity ratios had disappeared.
>
> [Emphasis added]

87. Dr. Booth had also predicted a rapid recovery of the Eurozone crisis, which has not materialized:[85]

> So RBC is forecasting that US ten year yields could jump by 1.0% based on a credible resolution to the Eurozone problems, which Dr. Booth feels is gradually getting resolved anyway and that as a result there could be significant bond market sell off (increase in yields) in 3-6 months. Dr. Booth is not as optimistic as RBC, but before Operation Twist we were looking at 4.55% as a long Canada bond yield forecast and that would put as [*sic*] close to normal.

88. The incongruity of Dr. Booth's recommendation of a significant reduction in ROE in the face of market conditions that are, at best, in a holding pattern is only amplified by his

[83] Exhibit B-26, p. 42.

[84] Exhibit B-26, p. 6.

[85] Exhibit B-26, p. 45.

view (as discussed in Part Four) that nothing has materially changed since 2012 in FEI's business risk.[86]

I. DR. BOOTH'S GAS UTILITY RISK RANKING DIFFERS BY JURISDICTION

89. Dr. Booth, whenever he testifies before Canadian regulators, includes in his evidence a relative risk assessment using the same five major natural gas utilities (Gaz Métro, FEI, Union Gas, EGDI and ATCO Gas). He ranks them differently depending on the jurisdiction in which he is testifying. The common denominator is that the riskiness of the utility under review is minimized relative to other utilities. The following table demonstrates this point, with the utility under review in bold:

Year	Regulator	Risk Ranking (Lowest to Highest)
2012	OEB	EGDI < **Union**[87] < FEI
2012	BCUC	EGDI and ATCO < **FEI**[88] < Union and Gaz Métro
2014	AUC	**ATCO**[89] < EGDI < Union < FEI < Gaz Métro
2016	BCUC	EGDI and ATCO < **FEI**[90] < Union and Gaz Métro

90. Dr. Booth's utility risk ranking in the present case, which characterizes Union Gas as more risky than FEI, is contradicted by his evidence in both Alberta and Ontario. Mr. Coyne explains in his Rebuttal Evidence why Union Gas is less risky than FEI.[91] Union Gas is a very large utility that operates in a province where natural gas is considered clean and is, in the words of Dr. Booth, the "fuel of choice".[92] Dr. Booth's rationale for his BC-specific ranking of

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86 Exhibit C7-7-2, Evidence of Dr. Booth (Corrected), p. 80.

87 Exhibit B-26, p. 24: "Union Gas…consistent with its low business risk, significant size and greater capital market access than any other gas utility in Canada than EGDI."

88 Exhibit B-26, p. 30: "I would rate FEI as in the same risk bucket, or perhaps slightly riskier, than EGDI and ATCO Gas and lower risk than either Union Gas or Gaz Metro."

89 Exhibit B-26, p. 36: "In my judgment ATCO Gas would be the equivalent, or slightly lower, in risk to EGDI…ATCO Gas is certainly lower risk than Gaz Metro and FEI and I would regard it as slightly lower risk than Union Gas…"

90 Exhibit C7-7-2, Evidence of Dr. Booth (Corrected), p. 78: "I continue to rate FEI as in the same risk bucket, or perhaps slightly riskier, than EGDI and ATCO Gas and lower risk than either Union Gas or Gaz Metro.

91 Exhibit B-16, FEI Rebuttal Evidence, Rebuttal Evidence of Mr. Coyne, pp. 39-40".

92 Tr 3, 639, ll. 6-11 (Booth).

Union Gas as higher risk than FEI – i.e., Union Gas' larger industrial load[93] – is at odds with his 2012 GCOC evidence that he never places much reliance on load composition.[94]

91. Dr. Booth emphasized during the hearing that he considers these major gas utilities (with the exception of Gaz Métro) to be of broadly similar risk.[95] This does not explain why the ranking exercise he routinely chooses to undertake in his evidence changes depending on the jurisdiction. Moreover, his view that major gas distribution utilities are generally not sufficiently different from each other to depart from a generic 35 percent common equity ratio[96] is based on simplistic analysis and has yet to be accepted by any Canadian regulator.

J. CONCLUSION REGARDING OVERALL ASSESSMENT

92. The factors described in this Part provide a useful lens through which to view the evidence regarding business risk, capital structure and ROE that is addressed in the Parts below.

[93] Exhibit C7-7-2, Evidence of Dr. Booth (Corrected), p. 78; and Tr 3, 615, ll. 19-26 (Booth).
[94] Tr 3, 619, l. 16 - 620, l. 3 (Booth).
[95] Tr 3, 509, l. 25 - 510, l. 3 and 615, ll. 5-18 (Booth).
[96] Tr 3, 511, ll. 7-19 (Booth).

PART FOUR: FEI'S BUSINESS RISK

93. FEI's evidence regarding its business risks is found in Appendix C of the Application. Mr. Coyne's evidence (Appendix B of the Application) includes his own assessment of FEI's business risk, and a comparative risk analysis of FEI's business and financial risks relative to Canadian and U.S. proxy groups. The Commission should find, for the reasons set out below, that FEI's business risk is similar to what it was in 2012 and trending higher, meaning that FEI can anticipate experiencing a steeper upward trend in certain risk categories in the near future that are not yet fully realized.[97]

94. In this Part, FEI makes the following points in support of that assessment:

(a) Although amalgamation resulted in a minor increase in FEI's security of supply risk, there is consensus that the impact of amalgamation on overall business risk is not significant.

(b) Significant aspects of FEI's operating environment remain essentially unchanged since 2012, notably the trends of declining UPC, low capture rates and shrinking market share in space heating and water heating applications.

(c) Political risk is higher than presented in the 2012 GCOC proceeding, given the new municipal initiatives to preclude the use of natural gas and additional provincial and federal government initiatives.

(d) Regulatory risk has the potential to increase over the term of the PBR Plan.

(e) Dr. Booth's assessment was inaccurate and insufficient in key respects.

A. CONSENSUS THAT AMALGAMATION HAS NO SIGNIFICANT IMPACT ON BUSINESS RISK

95. The consensus is that the impact of amalgamation on business risk is not significant.

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[97] Exhibit B-1, Application, p. 4.

96. Mr. Coyne and FEI each assessed the impact of amalgamation on business risk and determined the impact was not significant.[98] The considerations that informed these assessments included:

(a) FEI's current business profile is not materially different from FEI's pre-amalgamation business profile. Amalgamated FEI remains a large natural gas distribution utility, regulated by the Commission, whose core business is to provide space and water heating. Its core market continues to experience declining UPC and relatively static throughput levels.[99]

(b) The addition of FEVI and FEW to FEI's service territory has slightly increased FEI's exposure to security of supply risk, as these two utilities are downstream of pre-amalgamated FEI on a radial system that crosses challenging terrain and the Strait of Georgia.[100]

(c) Mr. Coyne observed that, since FEI was already a large gas distributor, there has been no impact on FEI's risk profile due to the increased size of the amalgamated entity.[101] He also notes that as the former rate base associated with the amalgamated entities FEVI and FEW transition to FEI's lower equity ratio and allowed ROE, all else being equal, the amalgamation is expected to reduce FEI's credit metrics.[102]

97. Dr. Booth agrees that amalgamation has no material impact on risk, stating: "I would recommend no adjustment for the amalgamation of FEI which I do not judge to materially alter its risk or financial parameters."[103]

98 Exhibit B-1, Application, pp. 2-3; Exhibit B-16, FEI Rebuttal Evidence, Rebuttal Evidence of Mr. Coyne, p. 3.

99 Exhibit B-1, Application, p. 3; Exhibit B-9, BCUC-FEI 1.2.1.

100 Exhibit B-9, BCUC-FEI IR 1.2.2 and 1.16.1; Exhibit B-1, Application, Appendix. C, p. 56.

101 Exhibit B-1, Application, Appendix B, Evidence of Mr. Coyne, p. 99.

102 Exhibit B-1, Application, Appendix B, Evidence of Mr. Coyne, p. 96.

103 Exhibit C7-7-2, Evidence of Dr. Booth (Corrected), p. 2.

B. CONTINUITY IN MOST RISK CATEGORIES

98. Since the Commission considered FEI's cost of capital relatively recently,[104] there is a significant amount of continuity in the underlying business conditions applicable to FEI. The following risk categories exhibit continuity since 2012.

(a) Continuity in Market Shift Risk

99. The market shift risk category considers the various market elements that influence FEI's ability to attract new customers and retain its existing customer base and throughput. Similar to 2012, the trend in FEI's throughput level, particularly for the residential sector, is characterized by: (1) weak capture rates in the new construction market in the growing multi-family dwelling sector; and (2) declining UPC.[105]

100. The market shift in new home development (from single family to multi-family) is adversely impacting natural gas use and capture rates for FEI in a manner similar to what was occurring in 2012.[106] Annual consumption for natural gas is greater in single-family dwellings than in multi-family dwellings. In order to maintain existing throughput levels in an environment where single-family dwelling housing starts are trending lower, FEI needs to capture more multi-family dwellings to offset the reduced levels of system throughput. Natural gas has a low penetration rate in multi-family dwellings.[107]

101. The new residential customers added to the system between 2011 and 2014 have lower UPC than existing customers, which has a long-term impact on FEI's residential throughput. The decline in UPC is attributable to a variety of factors, including technological advances and energy efficiency improvements, building codes, size and type of homes being

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[104] FEI filed evidence in that proceeding in August of 2012.

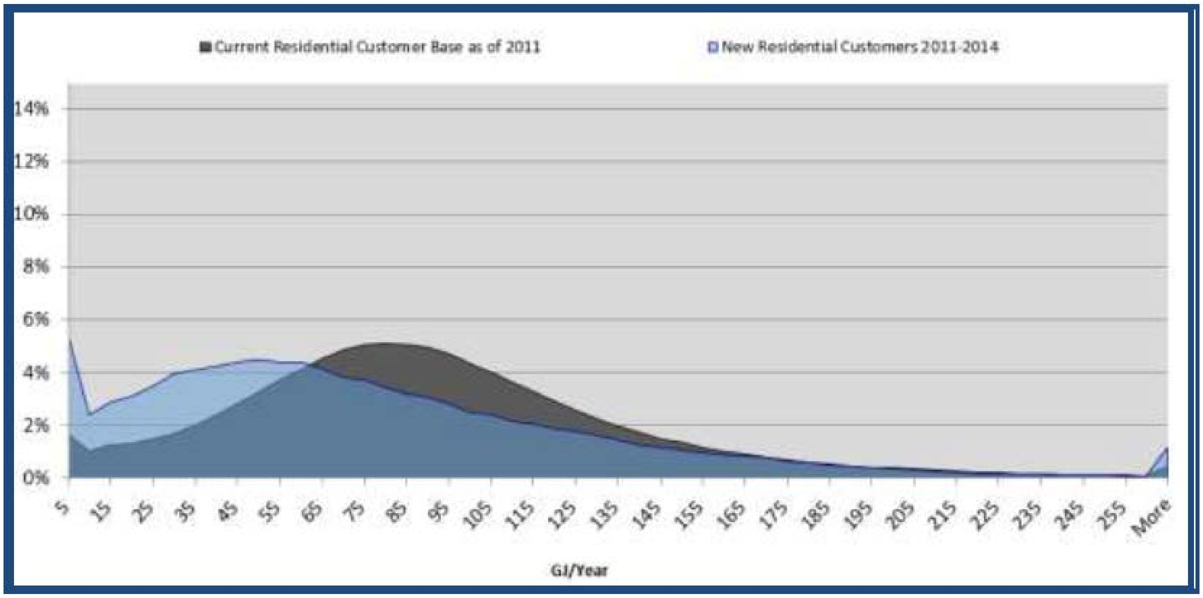
[105] Exhibit B-1, Application, p. 2.

[106] Exhibit B-1, Application, Appendix C, pp. 42-43.

[107] Exhibit B-1, Application, Appendix C, p. 43.

built, and type of appliance being installed in these homes.[108] Figure C-29 to the Application[109] illustrates that new customers will have a lower UPC compared to the existing customers:

Figure C-29: Amalgamated FEI's Residential Frequency Distribution



102. A constant increase in the number of residential customer additions is needed to keep the residential throughput, and therefore market shift risk related to it, at the current level.[110] Despite the increase in number of customer additions since 2012, FEI has continued to experience declining residential UPC and has lost market share to electricity in space heating and water heating sectors as corroborated by BC Hydro's 2015 residential end-use survey.[111]

103. FEI's efforts to increase natural gas throughput to serve transportation markets and LNG expansion continue to have the potential to provide net benefits to FEI's throughput in the long term and deliver rate benefits for other customers, but the magnitude and timing of benefits remains uncertain. Although FEI does expect net benefits from these growth areas,

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[108] Exhibit B-1, Application, Appendix C, p. 45.
[109] Exhibit B-1, Application, Appendix C, p. 47.
[110] Exhibit B-9, BCUC-FEI IR 1.20.4.
[111] Exhibit B-9, BCUC-FEI IR 1.20.4.

the increased throughput will be in the industrial rate classes, which have lower delivery rates than the residential and commercial rate classes in which the throughput decreases are occurring, and there are some incremental costs associated with securing the new load.[112]

(b) Continuity in Energy Price Risk

104. The energy price risk category consists of natural gas commodity price risk, commodity price volatility risk, and price competitiveness of natural gas (including the upfront and installation costs). The combined effect of these considerations gives rise to a similar level of risk to 2012.

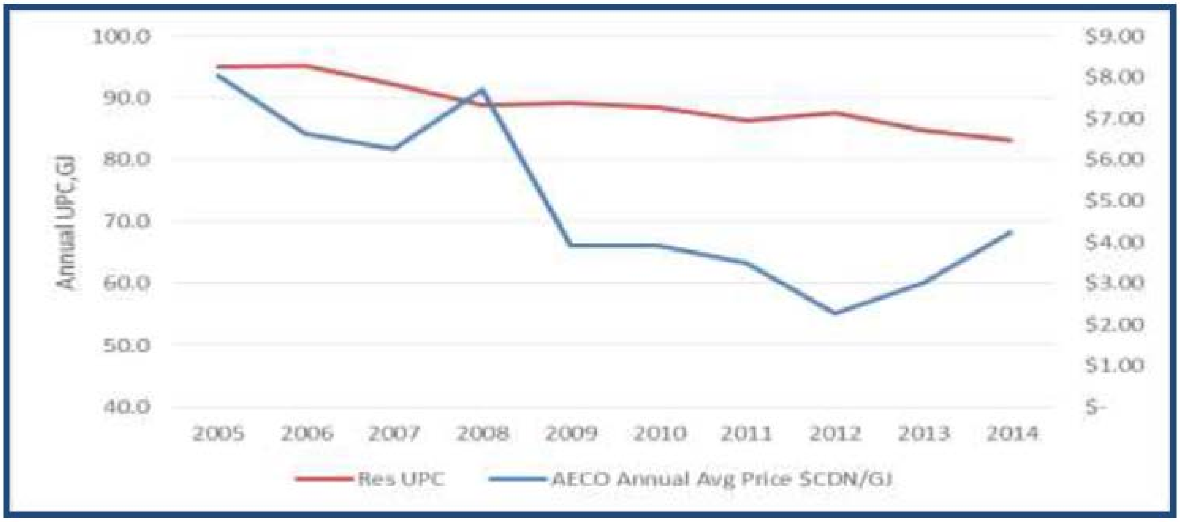
105. The overall natural gas price level from 2012 to 2015 has decreased compared to historical price levels.[113] However, the data demonstrates that market risk, and demand for natural gas, is significantly influenced by factors other than commodity prices. Figure C-28 from the Application[114] shows that for the residential sector, average UPC decreased during the period of rising prices but UPC has not rebounded during the low price environment experienced over the last couple of years.

[112] Exhibit B-4, CEC-FEI IR 1.16.3, 1.16.3.1.

[113] Exhibit B-9, BCUC-FEI IR 1.27.1.

[114] Exhibit B-1, Application, Appendix C, p. 46.

Figure C-28: Amalgamated FEI's Residential UPC and Commodity Price



106. There are a variety of factors that help to explain why the impacts of changes in commodity prices are muted, and do not translate directly to changes in overall risk. These other factors include, for example:

(a) ***Capital cost differential***: The capital cost differentials for natural gas appliances (as presented on page 34 of Appendix C of the Application) of $4,565 and $1,000 for space and water heating respectively are larger than the data FEI presented in 2012. This is important because builders and developers, who do not see operating cost savings, are the primary decision makers when it comes to choice of appliances.

(b) ***Commodity price volatility:*** Commodity price volatility has increased since 2012. Customers are not exposed to daily or monthly commodity market volatility in the sense that their rate does not fluctuate with every change in price, but they are still exposed.[115] Customers' perception is not only affected by their monthly bills but by what they hear on the everyday news as well. [116]

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[115] Exhibit B-9, BCUC-FEI IR 1.27.3. The commodity rate setting mechanism includes the recovery or refunding of accumulated deferral account balances as well as the forward projection of gas costs based on forward market

(c) ***Commodity cost forms smaller percentage of utility bill:*** The lower longer term natural gas commodity price forecasts serve to reduce the risk related to commodity prices relative to 2012, but the effect is more limited than it would have been in the past. Prices in 2012 were already at a level such that the natural gas commodity price constitutes a small portion of the overall delivered price of natural gas. The impact of the price change, in and of itself, on overall business risk is therefore muted.[117]

(d) ***Non-price factors:*** There are any number of non-price factors that can influence energy decisions. Preference for low carbon sources continues to be important. Political and legislative factors, discussed under the heading of political risk below, have taken on increasing importance since 2012.[118]

(c) Continuity in Operating Risk

107. This operating risk category includes the assessment of FEI's system integrity and the possibility of third party damages and other unexpected events. Overall operating risk is similar to 2012.[119]

(d) Continuity in Energy Supply Risk

108. Compared to 2012, the natural gas transportation infrastructure in FEI's service territory has remained relatively unchanged. The development of several significant gas transmission infrastructure projects connecting BC natural gas deposits with Alberta and with eastern markets in the coming years could alter the amount of gas available to FEI and the historical pricing relationship of BC supply in relation to Alberta production. This could have a negative impact on the price that consumers pay for natural gas in BC in the coming years. As

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prices. The accumulated deferral account balance includes the impacts of any recent daily and monthly market price volatility. Furthermore, daily and monthly market price volatility typically influences the forward market prices as well.

[116] Exhibit B-9, BCUC-FEI IR 1.27.3.

[117] Exhibit B-4, CEC-FEI IR 1.34.1.

[118] Exhibit B-9, BCUC-FEI IR 1.24.1.2. Exhibit B-7 AMPC-FEI IR 1.2.10 b).

[119] Exhibit B-1, Application, p. 14 and Appendix C, pp. 57-58.

described above, the addition of FEVI and FEW to FEI's service territory has slightly increased FEI's exposure to security of supply risk, as these two utilities are downstream of pre-amalgamated FEI on a radial system that crosses challenging terrain and the Strait of Georgia.[120]

C. POLITICAL RISK HAS INCREASED

109. Political risk refers to the impact of government policies, as well as Aboriginal rights and land title issues, on FEI's operations and its ability to attract and retain customers and maintain throughput on the system. There are new developments at all levels of government that suggest a steeper upward trend in FEI's political risk since 2012. There have also been developments in Aboriginal law and social license issues. Dr. Booth's evidence regarding FEI's business risk is not compelling.

(a) Significant Developments at Local Government Level

110. The intensity of local government green initiatives, and their potential to significantly impact FEI's operations, has increased since 2012.

111. The City of Vancouver's recent steps to endorse and promote the Creative Energy neighbourhood energy system in Northeast False Creek and Chinatown with an exclusive franchise for all space and water heating, backed by a mandatory connection bylaw, demonstrates a greater willingness on the part of local governments to dictate energy choices. The mandatory connection obligation for developers in the proposed Creative Energy franchise area and exclusivity over space and water heating for Creative Energy prevents FEI from competing for this future load in the proposed franchise area.[121]

112. The City of Vancouver has indicated that the Creative Energy application is only a small part of a broader Vancouver Neighbourhood Energy Strategy. The Strategy includes conversion of the "Downtown Steam System", for "South Downtown" and for "other Expansion

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[120] Exhibit B-1, Application, p. 14 and Appendix C, pp. 51-56.
[121] Exhibit B-1, Application, Appendix C, p. 67.

Areas" which includes the "West End" and "Downtown Eastside", "Cambie and Broadway Corridors".[122]

113. The City of Vancouver published a new energy strategy after the filing of this Application.[123] It establishes two targets:[124]

> Target 1: Derive 100% of the energy used in Vancouver from renewable sources before 2050
>
> Target 2: Reduce Greenhouse Gas emissions by at least 80% below 2007 levels before 2050

114. Customers within the City of Vancouver represent approximately 13 percent of FEI's total forecast load for 2016. Other things being equal, if the objectives established by the City of Vancouver are achieved, such that there is no natural gas consumption within the city, this would equate to a delivery revenue loss of approximately $100 million. This revenue loss translates into a delivery rate increase of approximately 13 percent for all remaining non-bypass sales customers.[125]

115. In addition amendments to bylaws that require higher efficiency appliances not easily installed in older homes are an impediment to customer retention. For instance, recent amendments to Vancouver's by-law mandates that for boiler or furnace upgrades of over $5,000, the annual fuel utilization efficiency ("AFUE") shall be equal to or more than 90 percent. The AFUE of 90 percent requires a condensing system. Generally speaking, with old homes it is expensive to convert the existing venting system to accommodate the venting system that is required for a condensing unit, which can lead to a migration of existing customers from natural gas condensing boiler/furnaces to electric ones.[126]

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[122] Exhibit B-1, Application, Appendix C, p. 67.
[123] Exhibit B-4, CEC-FEI IR 1.44.1.
[124] Exhibit B-4, CEC-FEI IR 1.44.1.
[125] Exhibit B-4, CEC-FEI IR 1.44.1.
[126] Exhibit B-1, Application, Appendix C, p. 67.

116. Other municipalities are also making significant changes to their operations, policy, codes and regulations.[127]

(b) Provincial Policy Developments Since 2012

117. The BC government's environmental and climate change policies are similar to the ones that existed during the GCOC Stage 1 proceeding; however, as mentioned on page 64 of Appendix C of the Application, the BC government is in the midst of developing a new "climate leadership plan" to review the options available for reinforcing the provincial efforts to reduce GHG emissions. It has created a "Climate Leadership Team" to provide advice and recommendations to government on a new Climate Action Plan.[128] This team has recently submitted a series of recommendations to the government that, if accepted, could significantly affect FEI's competitiveness, UPC, throughput, capture rate and the long-term viability of its traditional markets. Some of these recommendations are as follows:

(a) To establish a legislated 2030 target of 40 percent GHG emissions reduction below 2007 levels;

(b) Establish sectorial GHG reduction goals (below 2015) for 2030 including 50 percent for built environment and 30 percent for industrial sector with special focus on the natural gas industry;

(c) A fiscal policy to increase the carbon tax by $10/year commencing in July 2018 and expand the coverage of the current carbon tax to apply to all GHG sources in BC after 5 years;

(d) To use the other incremental revenues generated from the increase in the carbon tax to eliminate PST on all electricity rates; and

[127] Exhibit B-1, Application, Appendix C, pp. 64-67.
[128] Exhibit B-9, BCUC-FEI IR 1.4.3.

(e) Amend the *Environmental Assessment Act* to include the social cost of carbon in the environmental assessment process.[129]

118. The BC government has previously stated that as other jurisdictions introduce similar policies such as carbon taxes or carbon pricing, it may consider changes to its policies. With the introduction of a carbon tax in Alberta and the cap and trade mechanism in Ontario, it becomes more likely that the government will give serious consideration to the recommendations provided by the Climate Leadership Team.[130]

119. The recommendations of the Climate Action Team would have greater weight in an investor's deliberations at present if they were already adopted (like the policy of the City of Vancouver), but they do create significant additional uncertainty around the potential future political risk for investors. At a minimum, the Climate Action Team report reinforces and amplifies the direction of the provincial government in its policies that are generally less favourable to natural gas in traditional applications. The potential for these significant policy recommendations to be introduced at all represents an incremental risk. It is appropriate for the Commission to consider this additional uncertainty in its risk evaluation.[131]

(c) Federal Policy Developments Since 2012

120. The federal government has recently indicated its intentions to embrace strict climate change-related goals. For example, on December 6, 2015 at the COP21 meetings in Paris, the Canadian Minister of Environment and Climate Change stated Canada's support for reducing GHG emissions to a level that would limit warming of global temperatures to 1.5 degrees Celsius above pre-industrial levels (i.e., lower than the commonly noted target for warming of 2 degrees Celsius) and that countries should have legally binding GHG reduction targets. Canada, along with nearly 200 other nations, was a signatory to an agreement reached at the COP21 meetings, further confirming Canada's intentions to pursue carbon emission

[129] Exhibit B-9, BCUC-FEI IR 1.4.3.
[130] Exhibit B-9, BCUC-FEI IR 1.4.3; see also Exhibit B-10, BCUC-FEI IR 2.51.1.
[131] Exhibit B-10, BCUC-FEI IR 2.51.1; Exhibit B-4, CEC-FEI IR 1.45.1.

reductions and climate change mitigation initiatives. Only time will tell how these matters will develop and how they will affect Canada and BC, but it is safe to say that they are moving in the direction of stricter carbon emission policies and higher carbon prices that present challenges for natural gas utilities.[132]

(d) Aboriginal Rights and Title and Social Licence Issues

121. FEI's ability to attract and retain customers and throughput is influenced by its ability to construct and operate infrastructure necessary to provide service in a timely manner. There is a risk associated with delays in permitting or interference with construction to the extent that it discourages new customers from choosing natural gas or prevents serving new or existing customers that want natural gas. It has long been the case that opposition from First Nations and other stakeholders can influence implementation and timelines, but there have been material developments in the level of that risk since 2012:

(a) The 2014 Supreme Court of Canada decision in *Tsilhqot'in Nation v. British Columbia*[133] has contributed to growing expectations from First Nations with regard to the degree of engagement and breadth and depth of benefits agreements and/or MOUs.[134]

(b) There has been growing opposition to, and intervention in, resource projects. The concept of "social licence" appears to be taking hold.[135]

D. THE IMPLICATIONS OF PBR FOR REGULATORY RISK

122. Regulatory discretion in approving or denying a utility's applications is the main cause of regulatory uncertainty. It gives rise to the risk that (1) the allowed return does not accord with the Fair Return Standard, (2) that rates are set at a level that does not provide FEI with an opportunity to earn its fair return, and (3) that investments are not approved (at all or

[132] Exhibit B-4, CEC-FEI IR 1.45.1.

[133] Exhibit B-1, Application, Appendix C, p. 72.

[134] Exhibit B-9, BCUC-FEI IR 1.18.1 and 1.18.2; see also Exhibit B-7, AMPC-FEI IR 1.1.3.1.

[135] Exhibit B-1, Application, Appendix C, p. 69.

in a timely manner) to permit FEI to operate reliably and efficiently and meet customer requirements. Regulatory risk is similar to what it was in 2012, with the potential to be higher over the term of the PBR plan.

123. The broader regulatory constructs that supported FEI's characterization of regulatory risk in 2012 remain in place (e.g., rate base rate of return regulation, Fair Return Standard).

124. Mr. Coyne's evidence was that PBR is generally regarded as higher risk than cost of service regulation.[136] That view is shared by the rating agencies.[137] In FEI's case, regulatory risk may increase over the term of the PBR due to the potential non-recovery of prudently incurred costs for exogenous events (due to the materiality threshold for Z-factor) and/or if the PBR formula cannot appropriately compensate FEI for its capital expenditures (for instance due to the 50 percent reduction in growth factors or the use of backward looking rate-setting elements in PBR formula). The regulatory framework after the current PBR period is not yet known.[138]

E. DR. BOOTH'S BUSINESS RISK EVIDENCE

125. Dr. Booth concludes that FEI is marginally lower risk than in 2012,[139] although not sufficiently different to warrant a change in his recommendation from 2012. He emphasizes the utility's ability to earn its allowed ROE (i.e., short-term risk), a risk which has not changed since 2012. His answer to FEI's assessment of incremental political risk rests on two suspect propositions.

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[136] Tr 2, 347, ll. 12-19 (Coyne); Exhibit B-1, Application, Appendix B, Evidence of Mr. Coyne, 75-76.

[137] Exhibit B-1, Application, Appendix B, Evidence of Mr. Coyne, 74-75.

[138] Exhibit B-12, CEC-FEI IR 2.55.3; Exhibit B-9, BCUC-FEI IR 1.17.1.

[139] Exhibit C7-7-2, Evidence of Dr. Booth (Corrected), p. 80.

(a) Dr. Booth's Focus on Short-Term Risk

126. 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 common equity ratio recommendation for FEI. It forms a key rationale for his approach of consistently recommending 35 percent common equity for gas and electric distribution utilities.[140] The general trend of FEI and other Canadian distribution utilities generally achieving their allowed ROE goes back many years, and has not changed since 2012. This is not a new factor that would justify a reduction in FEI's common equity ratio.

127. As in 2012, Dr. Booth is maintaining that the track record of earning the allowed ROE suggests that FEI has not experienced any risk.[141] There are two problems with this assessment. First, risk is prospective in nature. With the benefit of sound management and executive oversight, FEI generally expects to be able to manage its costs in the ordinary course of business to achieve the allowed ROE. Its track record (and the record of other Canadian utilities) bears that out. Variances, both positive and negative, can still occur because of the imprecision inherent in any forecast and changing circumstances that arise during the test year(s) or because of mismatches between FEI's actual costs and revenue requirement set under PBR plan. The ability of a utility to earn its current allowed ROE can only provide insight into how a utility has managed its short-term risk.

128. Second, a utility's ability to manage to budget within a test year does not guarantee the full recovery of invested capital in future, which is a function of long-term risks. Investors require for the risks to be compensated throughout the investment period via a fair and reasonable allowed return and capital structure. No investor would ever accept the argument that a risk shall only be considered when it materializes in earnings. Dr. Booth has agreed that long-run risk is more important in low interest-rate environment as the discounting

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[140] Tr 3, 511, ll. 11-19 (Booth).

[141] Exhibit C7-7-2, Evidence of Dr. Booth (Corrected), p. 69.

process means that future cash flows are worth more with low interest rates.[142] As described next, Dr. Booth's long-term risk assessment, particularly in respect of the impact of changes in political risk, is not compelling.

(b) Depreciation Rate Changes and Getting off Coal

129. Dr. Booth's response on political risk focusses on depreciation rate changes and the role of natural gas in reducing GHG emissions. Neither of these suggestions is persuasive.

Accelerating Depreciation Rates Transforms Risk, Not Eliminates It

130. Dr. Booth suggests that the ability of utilities to adjust depreciation rates offsets additional political risk:[143]

> Further, I do not see slower growth prospects as a risk factor, since it does not affect the value or the risk of assets in place. If FEI does see the provincial government requiring the removal or modification of natural gas heating systems, the correct response is a depreciation study to depreciate the assets more quickly and reduce any stranded asset risk. In this way t[sic] keep FEI whole in terms of its risk exposure.

131. It is true that utilities like FEI have the ability to apply to the regulator to adjust depreciation rates. Dr. Booth is incorrect, however, in suggesting that the ability to make such an application neutralizes incremental risk. From an investor's perspective, Dr. Booth's argument amounts to substituting additional regulatory and competitive risk for additional political risk.

(a) Accelerating depreciation increases costs to any customers that remain on the system.[144] In its rebuttal evidence, FEI provided an example of the significant effect of the Vancouver Renewable City Strategy.[145] Dr. Booth's proposed solution of a depreciation study does not consider the revenue deficiency and

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[142] Exhibit C7-8, FEI-AMPC IR 1.14.1.

[143] Exhibit C7-7-2, Evidence of Dr. Booth (Corrected), p. 80.

[144] Exhibit B-16, FEI Rebuttal Evidence, pp. 6-8.

[145] Exhibit B-16, FEI Rebuttal Evidence, p. 7.

associated rate impacts created by significant costs which would need to be recovered from fewer remaining customers.

(b) Changes in depreciation rates must be approved by the regulator, and the regulatory discretion associated with such an application is the source of regulatory risk for which investors will require compensation.

Natural Gas as a GHG Solution in BC

132. Dr. Booth's position that "many parties accept that natural gas is a solution to the GHG problem"[146] is counterintuitive in the context of a BC-based natural gas distribution utility with FEI's customer profile and ignores the clear evidence of local and provincial government action in British Columbia.

133. Dr. Booth's assertion makes sense in other jurisdictions where natural gas is a clean alternative to coal generation.[147] However, the main alternative to FEI's natural gas space and water heating is low carbon hydroelectricity. As Dr. Booth had admitted in 2012:[148]

> MR. GHIKAS: Q: Right. And let me pose it to you this way, Dr. Booth. If there is no coal generation, no coal-fired generation in B.C. and there's minimal natural gas-fired generation, and there's no oil sands in B.C., and government is committed to natural gas production in northern B.C., can we agree that the residential heating sector is a more likely target of emissions reduction policies than would be the case in Alberta and Ontario?
>
> DR. BOOTH: A: 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 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

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[146] Exhibit C7-7-2, Evidence of Dr. Booth (Corrected), p. 79.

[147] Tr 3, 605, ll. 5-26 (Booth); Exhibit B-26, pp. 10-11.

[148] Exhibit B-26, pp. 10-11.

> 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.

134. Dr. Booth made use of Canada-wide statistics in an attempt to show an inverse relationship between GHG emissions and natural gas distribution.[149] However, those statistics do not assist as they are not limited to British Columbia. They include provinces that are moving from coal[150] to natural gas fired and combined cycle power plants to curb their GHG emissions and have invested in new infrastructure to transport the required natural gas to consumption points. More than 93 percent of BC's power is generated by hydro-electric plants. Unlike many other parts of Canada, reductions of GHG emissions on FEI's system are associated with loss of load (particularly residential load), which is a business challenge for FEI, not a competitive advantage.[151]

135. Mr. Coyne described FEI as being under more pressure from GHG policy than any other utility in North America:[152]

> So, I consider this issue -- for every gas utility it's an issue. There's a social good that's going here in the sense that consumers are using resources more wisely, but the degree to which they're being pushed to choose alternative and being pushed to use less, do vary considerably. And in FEI service area, I can think of no utility in North America that's facing the pressures that we are seeing here in terms of those forces that are all designed to shrink the amount of natural gas that will be used over time in aggregate and on a per customer basis. So in that sense they're different.

136. Dr. Booth's evidence regarding political risk should not be given any weight in light of its inapplicability in the BC context. The evidence demonstrates FEI's political risk is higher than the risk level identified in 2012 for the benchmark utility FEI.

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[149] Exhibit C7-7-2, Evidence of Dr. Booth (Corrected), p. 80.
[150] Tr 3, 607, ll. 8-16 (Booth).
[151] Exhibit B-16, FEI Rebuttal Evidence, p. 6.
[152] Tr 1, 103, l. 18 - 104, l. 3 (Coyne).

F. CONCLUSION REGARDING BUSINESS RISKS

137. The evidence discussed above regarding FEI's business risks supports restoring a 40 percent common equity ratio. As discussed next, FEI's requested common equity ratio is also supported by other factors.

PART FIVE: OTHER FACTORS DEMONSTRATING REASONABLENESS OF 40 PERCENT COMMON EQUITY

138. As discussed in Part Two, ensuring that financial integrity and flexibility is maintained, as well as to allowing FEI to attract capital on a comparable basis with its North American peers, are essential elements of the Fair Return Standard. The following points, in addition to FEI's business risk, support a common equity ratio of 40 percent for FEI as being consistent with the Fair Return Standard:

(a) FEI's financial metrics, which are underpinned by its allowed ROE and capital structure, are weak for a credit rating in the "A" category. A downgrade to FEI's rating could adversely impact both the ability to borrow and cost of borrowing.

(b) FEI's proposed equity thickness is appropriate, but at the low end of the range of reasonableness, particularly when compared to its peers.

(c) An increase in the common equity component of the capital structure will support FEI's ongoing debt issuance capacity under the Trust Indenture.

A. REQUESTED COMMON EQUITY RATIO IMPORTANT FOR ACCESS TO CAPITAL

139. FEI's financial flexibility and financial integrity depend on its ability to access the capital markets on reasonable terms and pricing in all market conditions. Maintaining a stand-alone investment grade debt rating in the A category supports FEI's ability to access capital markets, should there be a market disruption similar to 2008 and 2009. While a similar capital market disruption would increase borrowing costs, with a resulting constraint on issuance capacity, maintaining an A credit rating helps to protect FEI's access to the markets in such an environment and avoid an adverse impact on both the ability to borrow and cost of borrowing. The potential for a market disruption exists despite the current lower interest rate

environment.[153] This is particularly important considering FEI's high capital expenditure requirements and the ongoing access to debt capital that will be necessary in the future.

140. As FEI carries an A3 rating from Moody's, which is one notch above a Baa1 rating and lower than its DBRS rating, a Moody's downgrade would put FEI into the Baa/BBB category. This would result in a split-rating for FEI (that is, one debt rating in the A category and one rating in the Baa/BBB category). Investors typically focus on the lowest rating and as such the predominant weight on the lower Moody's rating would result in FEI being considered principally a BBB rated entity. This outcome would have an adverse impact on FEI's cost of debt (both short-term and long-term), access to capital markets and credit with its counterparties.[154]

141. The credit spread associated with a BBB credit rating category is higher than that associated with an A credit rating category. In addition, A-rated debt yields are less volatile than BBB-rated debt. There is a significant range in credit spreads between rating categories, particularly during periods of market disruption, such as 2008/09.[155]

142. A credit rating downgrade below the A rating category could lead to FEI being required to post letters of credit with its counterparties, which would add direct costs in the form of letter of credit fees and lead to a higher utilization of debt facilities, reducing the availability of its credit facilities to fund ongoing operations, including capital requirements.[156]

143. Mr. Coyne concludes that higher capex spending in the near term may result in downward pressure on FEI's credit metrics and could result in a ratings downgrade, since FEI operates at the lowest rung of the A rating category (A3).[157] He also gave evidence that a downgrade below an A rating grade is particularly significant in the Canadian credit market where there is less trading of lower-rated investment grade debt (i.e., below the A ratings

[153] Exhibit B-9, BCUC-FEI IR 1.7.2.
[154] Exhibit B-1, Application, pp. 20-21.
[155] Exhibit B-1, Application, pp. 21-22.
[156] Exhibit B-1, Application, p. 23.
[157] Exhibit B-1, Application, Appendix B, Evidence of Mr. Coyne, p. 97.

grade). Institutional investors often face limits investing in Baa/BBB debt. Further in the financial market dislocation of 2008 and 2009, regulated issuers below an "A" credit rating, were effectively shut out of the Canadian credit market.[158] Mr. Coyne also noted that in light of FEI's large capex program and its upcoming financing requirements, a downgrade to below an A rating would result in higher financing costs and should be avoided. [159]

144. A decision to reduce common equity or ROE may be viewed as undermining regulatory support that has otherwise supported FEI's rating in the face of traditionally weak metrics. This has been corroborated in Moody's June 2013 Credit Opinion on FEI which stated "the BCUC's recent generic cost of capital decision (GCOC), which reduced both FEI's allowed ROE level and equity component for rates, is …. the impetus for the company's negative ratings outlook."[160]

145. The reaction of Moody's to the GCOC Stage 1 Decision highlights the risk of FEI's current rating, which is influenced by FEI's relatively weak credit metrics.[161] With the exception of Debt to Capitalization ratio, all financial metrics are below the Moody's designated threshold for an A3 rating.[162] Credit metrics represent a large weighting of the overall methodology. While weak credit metrics have the ability to be offset through qualitative factors such as strong regulatory support, Moody's states in FEI's July 2015 rating report that a material adverse regulatory decision could result in a rating downgrade.[163]

146. FEI's proposed common equity ratio is appropriate in light of FEI's credit metrics and the importance of a rating at an "A" level.

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[158] Exhibit B-1, Application, Appendix B, Evidence of Mr. Coyne, p. 97.

[159] Exhibit B-1, Application, Appendix B, Evidence of Mr. Coyne, p. 98.

[160] Exhibit B-9, BCUC-FEI IR 1.8.2.

[161] Exhibit B-1, Application, pp. 24-25.

[162] Exhibit B-1, Application, p. 25.

[163] Exhibit B-9, BCUC-FEI IR 1.8.3.

B. COMPARISON OF FEI TO OTHER UTILITIES

147. Mr. Coyne conducted a comparative risk analysis of FEI's risk with the Canadian and U.S. proxy groups and reviewed FEI's financial metrics. In Mr. Coyne's expert opinion, a 40 percent equity thickness is "appropriate, albeit conservative".[164]

148. Mr. Coyne's assessment is supported by empirical analysis. FEI is ranked in the 44th percentile for credit rating (lower half), is slightly more risky than the entire group, and is in the lower quartile for allowed equity ratio and ROE. Even at FEI's proposed capital structure and ROE, its weighted equity return remains in the bottom quartile of all of the proxy group companies.[165]

149. Mr. Coyne's evidence was that an equity ratio of 40 percent recognizes the greater risks of FEI relative to its Canadian peer companies. Among major gas distribution utilities, only Gaz Métro is riskier than FEI, and Gaz Métro enjoys a substantial portion of deemed preferred equity, effectively acting as a further buffer for debt holders. With respect to the U.S. proxy group, FEI's proposal would fall below the entire range of U.S. companies, i.e. no U.S. company had either an equity ratio of 40.0 percent or below; or had a weighted equity ratio of 3.80 percent or below. On that basis, given FEI's higher long-term business risk and lower equity ratio compared to the majority of utilities in Mr. Coyne's proxy groups, it is reasonable to increase FEI's equity ratio on this point alone. Mr. Coyne concluded that that an equity ratio of 40.0 percent is conservative because of FEI's higher risk.[166]

150. On page 6 of his evidence, Dr. Booth indicates that he considers ATCO Gas and EGDI at the low end of the risk spectrum, with Union and FEI marginally higher, and Gaz Métro as the highest risk.[167] Dr. Booth calculates a "comparator benchmark" of 37 percent.[168]

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[164] Exhibit B-1, Application, Appendix B, Evidence of Mr. Coyne, p. 102.

[165] Exhibit B-1, Application, Appendix B, Evidence of Mr. Coyne, p. 100.

[166] Exhibit B-1, Application, Appendix B, Evidence of Mr. Coyne, p. 102.

[167] Exhibit C7-7-2, Evidence of Dr. Booth (Corrected), p. 6.

[168] Exhibit C7-7-2, Evidence of Dr. Booth (Corrected), pp. 2, 86-87.

Despite the fact that Dr. Booth regards the main comparators as Gaz Métro (43.5 percent[169]), Union Gas (36 percent[170]), EGDI (36 percent[171]) and ATCO Gas (38 percent[172]), he refers to Hydro Québec's equity ratio as a more recent "litigated hearing" to suggest a floor of 35 percent.[173] There are several issues with Dr. Booth's rationale:

(a) There is no major natural gas distribution utility in Canada whose allowed common equity is as low as 35 percent.[174]

(b) There is no major investor-owned electric distribution utility whose allowed common equity ratio is as low as 35 percent.[175]

(c) There is no major investor-owned electric transmission utility in Canada whose allowed common equity ratio is as low as 35 percent.[176]

(d) Hydro Québec Distribution is a provincially-owned electric distribution utility established to transport legacy hydro-electric power to captive customers throughout Québec. It has very little in common with FEI.

(e) ATCO Gas, which Dr. Booth concedes is less risky than FEI, has a common equity ratio of 38 percent (3 percent higher than Dr. Booth's recommendation).

(f) A "comparator benchmark" that appears to be based on a rough averaging of the capital structures of the major gas distribution utilities other than FEI is meaningless. The capital structure should be risk adjusted, and FEI is more risky than Union Gas, EDGI and ATCO Gas.

[169] Exhibit B-16, FEI Rebuttal Evidence, Rebuttal Evidence of Mr. Coyne, pp. 38-39.
[170] Exhibit B-1, Application, Appendix B, Evidence of Mr. Coyne, p. 101.
[171] Exhibit B-1, Application, Appendix B, Evidence of Mr. Coyne, p. 101.
[172] Exhibit B-1, Application, Appendix B, Evidence of Mr. Coyne, p. 101.
[173] Exhibit C7-7-2, Evidence of Dr. Booth (Corrected), p. 7.
[174] Tr 3, 516, ll. 6-10 (Booth).
[175] Tr 3, 516, l. 25 to 517, l. 3 (Booth).
[176] Tr 3, 517, ll. 6-10 (Booth).

C. INCREASE IN COMMON EQUITY SUPPORTS ONGOING DEBT ISSUANCE UNDER TRUST INDENTURE

151. As a regulated distribution utility that is required to continually invest in its gas distribution system to serve its customers, ongoing access to capital is imperative. This is particularly true for FEI in the near term, considering the capital projects underway or planned. In total, the debt financing required to satisfy FEI's capital needs for the 2016 to 2018 period could approach $1 billion.[177] An increase in the common equity component of the capital structure will support FEI's ongoing debt issuance capacity under the Trust Indenture.

152. FEI's Trust Indenture governs FEI's debentures including the ability to issue new debt. The debt issuance coverage test in the Trust Indenture provides that FEI will not issue debentures (other than First Mortgage Bonds or PMMs (both represent secured debt) maturing 18 months or more after the date of issue) unless Consolidated Available Net Earnings (CANE) is at least 2.0 times the annual interest expense on debentures, excluding interest related to PMMs and including the annual interest requirements on the additional debentures being issued (defined as Interest on Funded Obligations under the Trust Indenture). Failure to meet this test would limit FEI's ability to issue long-term debt.[178]

153. FEI's current capacity to issue debt reflects the current equity component of 38.5 percent, ROE of 8.75 percent, and the fact that FEI has $275 million of debt classified as PMMs (out of total long-term debt of $2.045 billion) which is excluded from the debt issuance coverage test. FEI has lost or will lose the benefit of the PMM interest exclusion as $275 million in PMMs matured in 2015 ($75 million) and will mature in 2016 ($200 million). These maturing PMMs are being refinanced with senior unsecured debentures under the FEI Trust Indenture, whose interest, unlike the PMMs, will be included in the issuance test.[179]

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[177] Exhibit B-1, Application, p. 27.

[178] Exhibit B-1, Application, p. 27.

[179] Exhibit B-1, Application, p. 28.

154. The FEI Trust Indenture limits FEI's ability to issue secured debt, and it is a restrictive and inefficient form of financing in any event. Secured debt places a direct claim over assets on behalf of debt holders. It is more appropriate for an A3 rated utility to have proper capitalization to ensure debt issuance as opposed to having to resort to less efficient financing instruments.[180]

155. Dr. Booth continues to misinterpret the intricacies of the debt issuance coverage test specific to the Trust Indenture of FEI. In his evidence, Dr. Booth suggests that "FEI has considerable financing flexibility and is not currently constrained by the [Interest Coverage Ratio ("ICR")] in issuing [Medium Term Notes ("MTNs")]".[181] Dr. Booth has made the same error in his current evidence as he had made in 2012 in referencing the SEDAR filed ratio, which he refers to as the Interest Coverage Ratio or ICR, as the test used to determine FEI's ability to issue new debt under the Trust Indenture. The SEDAR filing is a requirement for securities compliance purposes and cannot be used as a replacement for the specific terms of FEI's Trust Indenture in determining if it is allowed to issue new debt. As FEI had pointed out in its 2012 rebuttal evidence, the issuance test under the Trust Indenture differs from the SEDAR ratio in a number of ways, including in that the Trust Indenture ratio is prospective whereas the SEDAR ratio is a historic earnings coverage ratio. The SEDAR ratio only includes earnings and interest from the past year, whereas the issuance test ratio requires the interest on the new debenture being issued to be covered as well.[182]

156. FEI has discussed the implications of the proper test under the Trust Indenture in section 6.3 of the Application. It provided a sample calculation showing that there could be significant constraints on debt issuance capacity during FEI's current period of high capital

[180] Exhibit B-1, Application, p. 28.

[181] Exhibit C7-7-2, Evidence of Dr. Booth (Corrected), p. 85.

[182] Exhibit B-16, FEI Rebuttal Evidence, p. 11.

expenditure requirements, even at a ROE and capital structure well above those proposed by Dr. Booth.[183]

157. Issuance capacity would decline materially were the Commission to accept Dr. Booth's recommended ROE of 7.5 percent and a 35 percent common equity ratio. The resulting decrease in issuance capacity would be $389 million from the current status quo issuance capacity, after accounting for the impact of refinanced PMMs. In an increasing interest rate environment, this capacity would become even further constrained. Furthermore, there would be considerable risk of a downgrade by Moody's if Dr. Booth's recommended ROE and capital structure are adopted. A downgrade could lead to further constraint on the debt issuance coverage ratio through higher borrowing costs.[184]

D. CONCLUSION REGARDING OTHER COMMON EQUITY FACTORS

158. FEI's financial flexibility and financial integrity depend on its ability to access the capital markets on reasonable terms and pricing in all market conditions. In addition to reflecting FEI's business risk, a 40 percent equity ratio will ensure that financial integrity and flexibility are maintained. It will allow FEI to attract capital on a comparable basis with its North American peers.

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[183] Exhibit B-16, FEI Rebuttal Evidence, pp. 11-12.

[184] Exhibit B-16, FEI Rebuttal Evidence, p. 12.

PART SIX: THE APPROPRIATE ROE FOR FEI

A. INTRODUCTION

159. Mr. Coyne and Dr. Booth have provided expert evidence on FEI's cost of equity and a fair ROE for FEI. Mr. Coyne's evidence is that a fair ROE for FEI is 9.5 percent on 40 percent equity. Dr. Booth is recommending a ROE of 7.50 percent -- i.e., 125 basis points below the current allowed ROE based on a common equity ratio that is 3.5 percent lower than the current ratio. In this Part, FEI addresses the methodological issues arising between Mr. Coyne and Dr. Booth. Understanding these issues helps to explain why Mr. Coyne's recommendation is both intuitive and quantitatively supported, while Dr. Booth's recommendation is not transparent and unreasonably low.

160. FEI makes the following points in this Part:

(a) There are some basic differences between the respective approaches of Dr. Booth and Mr. Coyne that relate to model selection and weighting. Mr. Coyne has used multiple tests to estimate the fair ROE for FEI in a manner consistent with best practice and past Commission decisions.

(b) The usefulness and reliability of one model versus another is not static over time, and the current circumstances speak strongly to giving at least equal weight to Mr. Coyne's multi-stage DCF results.

(c) Mr. Coyne's methodology for selecting comparables for his CAPM and DCF analyses is superior to the approach used by Dr. Booth.

(d) Mr. Coyne's multi-stage DCF analysis is sound and addresses the issues Dr. Booth has raised about DCF. Dr. Booth's own simplified sustainable growth DCF analysis guaranteed understated DCF results.

(e) Mr. Coyne has used more appropriate and transparent inputs in his CAPM than Dr. Booth's Risk Premium Model inputs. Dr. Booth's upward adjustments are insufficient to compensate for the combined effect of his unreasonable inputs in the current market conditions, and the results of his model are thus much too low.

(f) The experts agree that, consistent with past decisions, a 50 basis point allowance for flotation costs should be added to the results of market-based (i.e., DCF and CAPM/Risk Premium) tests.

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

161. Mr. Coyne's evidence was that the CAPM and DCF approaches are based on different premises and bring a different perspective to the fair ROE. He stated that employing multiple tests provides greater confidence that the allowed ROE is within a reasonable range; only by applying multiple tests can the Commission be assured of a reasonable estimate of the required ROE.[185]

162. The Brattle Group, consultants retained by the Commission for the 2012 GCOC Stage 1 proceeding,[186] characterized the use of multiple tests as "best practice":[187]

> 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.

163. The Brattle Group observed that analysts typically rely on the results from at least two estimation models,[188] as Mr. Coyne has done. The Commission employed multiple tests in the 2006 ROE, 2009 ROE and 2012 GCOC Stage 1 Decisions, and then determined how to weigh the results of each model.[189]

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[185] Exhibit B-1, Application, Appendix B, Evidence of Mr. Coyne, p. 37.

[186] Exhibit A2-3, Brattle Group Report.

[187] Exhibit A2-3, Brattle Group Report, pp. 3-4.

[188] Exhibit A2-3, Brattle Group Report, p. 5.

[189] 2006 ROE Decision, pp. 52 and 55; 2009 ROE Decision, pp. 44 and 45; GCOC Stage 1 Decision, p. 80.

164. Mr. Coyne identified some attractive features of the DCF model that make it an appropriate and useful test for determining ROE. The DCF test allows the analyst to directly estimate the utility cost of equity, in contrast to the CAPM, which estimates the cost of equity indirectly. DCF-based models explicitly analyze company-specific data, consistent with the comparable investment return requirement of the Fair Return Standard. The CAPM analyzes only the extent that company-specific returns vary with the overall market. Further, DCF models measure the implied return from utility dividend and share data, in contrast to the CAPM, which measures the return investors should expect under the theoretical assumptions of the model. Mr. Coyne responded in his evidence to the typical challenges raised with the DCF model, and they are addressed in Section F below.

165. The appeal of the CAPM is its simplicity, but that comes at a price. Mr. Coyne explained:[190]

> While appealing for its simplicity and broadly utilized in corporate finance, the CAPM has been challenged by a large body of empirical evidence and financial theory that question the plausibility of its assumptions, the assumed behavior of investors, and the ability to test the model against market data that fully represents the choices of investors.

166. The Commission's 2006 ROE Decision recognized the shortcomings with the CAPM, stating:[191]

> 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

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[190] Exhibit B-1, Application, Appendix B, Evidence of Mr. Coyne, p. 36.

[191] 2006 ROE Decision, pp. 47-48.

> 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 move counter to the rest of the equity market could be expected to have betas that are negative.
>
> [Exhibit references omitted]

167. Dr. Booth maintains that "the big advantage of the CAPM is that it is difficult to make big mistakes".[192] As with any model, each component of the CAPM analysis involves the exercise of expert judgment in selecting inputs and/or setting parameters of empirical calculations. Dr. Booth took the exercise of expert judgment one step further, essentially substituting his own judgement on the MRP and beta values in place of his empirical results. This exercise introduced significant potential for "big mistakes" and was less transparent. Dr. Booth's comment about "big mistakes" is also difficult to reconcile with his unequivocal rejection of both the CAPM and conditional CAPM results, and his ultimate concession that he now has less faith in his "Operation" Twist adjustment.

C. COMMISSION'S APPROACH TO WEIGHTING HAS VARIED BUT DCF GETS SIGNIFICANT WEIGHT

168. The usefulness and reliability of one model versus another changes over time. The Commission has applied different weightings to DCF and CAPM in past regulatory decisions, and the weightings differ from regulator to regulator depending on the evidence before it. One common thread in the two most recent Commission decisions (2009 ROE Decision and GCOC Stage 1 Decision), is that the Commission has given at least equal weight to the DCF test. Mr. Coyne's approach is consistent with the Commission's recent approach. Dr. Booth's focus on the Risk Premium Model (adjusted CAPM) results is inconsistent.

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[192] Exhibit C7-7-2, Evidence of Dr. Booth (Corrected), p. 51.

169. In the GCOC Stage 1 Decision, the Commission gave equal weight to the DCF and CAPM approaches.[193]

170. The Commission stated in the 2009 ROE 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."[194] In 2009 the Commission declined to place a preponderance of weight on the CAPM to the exclusion of other models, recognizing the value of DCF and the challenges with the CAPM:[195]

> 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….
>
> ….
>
> …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.

[193] GCOC Stage 1 Decision, p. 80.

[194] 2009 ROE Decision, p. 45.

[195] 2009 ROE Decision, pp. 44-45.

171. These comments apply equally to Dr. Booth's Risk Premium Model, which is an adjusted CAPM.

172. The Commission is not alone in questioning the merits of placing a preponderance of weight on the CAPM. In 2009, the OEB rejected Dr. Booth's position that "overwhelming weight" should be given to a CAPM estimate:[196]

> 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.

173. The Federal Energy Regulatory Commission (FERC) currently relies primarily on the DCF model to determine the fair return for U.S. interstate pipeline, utilities and transmission companies.[197] Mr. Coyne observed that DCF "remains an important, if not primary, model for utility cost of capital determinations".[198]

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[196] Ontario Energy Board, *Report of the Board on the Cost of Capital for Ontario's Regulated Utilities*, EB-2009-0084, December 11, 2009 ("OEB 2009 Cost of Capital Decision"), pp. 34-37 (located in Appendix B of original Brattle Group Report), pp. 34-35.

[197] Exhibit B-16, FEI Rebuttal Evidence, Rebuttal Evidence of Mr. Coyne, p. 21.

[198] Exhibit B-16, FEI Rebuttal Evidence, Rebuttal Evidence of Mr. Coyne, p. 22.

D. CURRENT CIRCUMSTANCES FAVOUR GIVING AT LEAST EQUAL WEIGHT TO DCF RESULTS

174. The evidence supports giving at least equal weight to Mr. Coyne's multi-stage DCF results, relative to his CAPM results, in the current circumstances.

(a) The Reliability of DCF in Low Interest Rate Environment

175. Mr. Coyne highlighted that the DCF model is often favoured because it involves observable inputs, and that these attributes are even more valuable in the current market conditions:[199]

> The risk-free rate is, as we've discussed at some length, is distorted by all that's been going on in the government bond yield market by actions of central governments and investor behaviour around them. So they're at all time lows and everyone expects them to be at some different level in the future, and deciding what that different level in the future is, baked into investor expectations, is subject to some speculation.
>
> The same is true for beta. We've had very volatile stock markets, particularly over the last five years over which we measure beta, but even more so perhaps over the last year. So there is another input to the model that's subject to a lot of volatility, and as we've discussed, in Canada there's even debate pertaining to whether or not they should be adjusted to the market mean or not. And so as a -- and the estimate of the market equity risk premium, depending upon when you measure it over time, can vary considerably. So there's no input to the CAPM model that's not subject to controversy and great discussion and differences, legitimate differences between experts.
>
> When it comes to the DCF model, no one argues about whether or not the stock price is a stock price or the dividend yield is the dividend yield. The focus of controversy there pertains to whether or not the growth rate is a reasonable one in perpetuity, as we discussed earlier. But even there you have tools to allow you to test alternative growth rates over time, and the multi-stage DCF is generally considered to be a reasonable tool for doing so.
>
> So there's much less disagreement in the DCF model, I find, in almost every jurisdiction where it's applied, than there is with the CAPM and even more so in today's market environment. Some regulators refuse to look at the CAPM at all and put much more weight on the DCF as a result of these factors.

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[199] Tr 2, 429, l. 16 - 431, l. 2 (Coyne).

176. Mr. Coyne explained that, while he gave equal weight to multi-stage DCF and CAPM results to give recognition to past Commission decisions and general acceptance of CAPM in Canada, he is more confident in the results of the DCF:[200]

> One is I did look at the last decision and to look at the -- I think for any regulator they have to have faith in the models that they're using because they make these decisions from time to time and they'd like to see continuity in the methodologies that they rely upon. So I'm aware of that.
>
> I think that's especially true in Canada where there has historically been much more reliance on the CAPM model. And I think that's for good reason, because you haven't had the ability over time to measure a broad enough group of companies to select from. It's been the integration of capital markets, integration of utilities cross-border that I think have provided a greater ability to use the DCF on both sides of the border.
>
> So the reason I provided them equal weight is to give deference to a model that's had a lot of historic use in Canada and by this Commission. **But in the current market environment, I have more faith in a DCF model than I do in the CAPM.**
>
> [Emphasis added]

(b) Challenges With the CAPM / Risk Premium Approach in Current Conditions

177. There are recognized challenges with applying the CAPM at present.

178. The starting point for the CAPM and Dr. Booth's Risk Premium Model is the "risk free rate". The 30-year Canada bond yield (sometimes referred to as the "Long Canada bond yield") is the traditional proxy used for the risk free rate.[201] The legitimacy of the output of the Risk Premium Model depends on whether the Long Canada bond yield is a reasonable proxy for the risk free rate. There is no dispute that the current low interest rate environment renders that assumption incorrect and makes traditional CAPM analysis impossible. Mr. Coyne discusses this on page 36 of his evidence.[202] Dr. Booth includes a section in his evidence

[200] Tr 2, 431, l. 10 - 432, l. 4 (Coyne).

[201] Exhibit A2-3, Brattle Report, p. 14.

[202] Exhibit B-1, Application, Appendix B, Evidence of Mr. Coyne, p. 36.

devoted to why CAPM results cannot be used without accounting for the current interest rate environment.[203]

179. The distortion associated with the current market conditions has been recognized by regulators. For instance, the AUC held in 2011 that the relatively low expected level of the risk-free rate needed to be expressly recognized in the estimation of the magnitude of market and utility equity risk premiums:[204]

> …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.

180. 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."[205]

181. The Levy and Roll paper, cited by Dr. Booth, reinforces that the CAPM is not reliable in the present conditions. The authors set out to test the "prevalent belief that the CAPM is inconsistent with the sample parameters." They ask "In light of the evidence, should the CAPM be taken seriously or just a pedagogical tool for finance classes, grossly inconsistent with the empirical evidence?" In addition to the conclusions cited by Dr. Booth, the authors, testing previous studies, ultimately find that their study "does not constitute a proof of the empirical validity of the model…"[206] and conclude that the CAPM can be rejected in certain circumstances that include the present circumstances: "While the CAPM can be rejected for very low or high values of the risk free rate, it cannot be rejected for the wide range of

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[203] Exhibit C7-7-2, Evidence of Dr. Booth (Corrected), pp. 41-44.

[204] Alberta Utilities Commission, *2011 Generic Cost of Capital*, Decision 2011-474, December 8, 2011 ("AUC 2011 GCC Decision"), para. 56.

[205] AUC 2011 GCC Decision, paras. 57-58.

[206] Exhibit B-16, FEI Rebuttal Evidence, Rebuttal Evidence of Mr. Coyne, p. 23.

(monthly) interest rate values between 0.3 percent and 1.3 percent". This represents a range of between 3.65 percent and 16.8 percent, when compounded monthly. Current interest rates are below 3.65 percent.

182. The current market conditions have caused Dr. Booth to make two judgement-based adjustments, totalling 175 basis points to the CAPM results. As discussed elsewhere in this Submission, these adjustments, in and of themselves, add a potential source for "big mistakes". Dr. Booth now has less faith in the "Operation Twist" adjustment. His own data suggests that the adjustments are still understated by a considerable margin.

(c) Summary Regarding Use of Multiple Methodologies

183. A well-implemented multi-stage DCF model currently has advantages relative to models (the CAPM and Risk Premium Model) that are based on long term bond yields. The Commission should give at least equal weight to Mr. Coyne's multi-stage DCF results, with the remaining weighting to his CAPM results. Dr. Booth's implicit heavy weighting of his Risk Premium Model results is not justified, and the results are very much in question.

E. SELECTION OF APPROPRIATE PROXY GROUP IS THE FOUNDATION OF GOOD ROE ESTIMATION

184. Mr. Coyne explained that the selection of a comparable group of utility companies is necessary in cost of capital analysis to estimate the stand-alone equity return for FEI, since FEI is not a publicly-traded entity and has no directly observable market information with respect to utility shares.[207] The application of DCF tests and the CAPM / Risk Premium Model require reference to comparables. The points addressed below are: (1) Mr. Coyne's methodical approach to proxy selection allows the Commission to have greater confidence in his model results; and (2) U.S. proxy data can be used without adjustment.

[207] Exhibit B-1, Application, Appendix B, Evidence of Mr. Coyne, p. 28.

(a) Mr. Coyne's Proxy Selection Method Was More Robust Than Dr. Booth's Approach

185. Mr. Coyne selected a sample of Canadian utilities to provide a benchmark for the risks and resulting cost of capital for Canadian utilities. Since no publicly-traded pure-play gas distribution utilities exist in Canada, in order to measure market expectations specific to a gas distribution utility, he relied on his experience with U.S. utilities to develop a sample of U.S. companies that are primarily engaged in natural gas distribution.[208]

186. His proxy selection process was robust and involved two main steps:

(a) ***Step 1 - Screening:*** Mr. Coyne initially screened his U.S. sample to obtain a representative sample of pure play gas distribution utilities with similar risk profiles to FEI. He selected U.S. companies with high credit ratings; the credit ratings for his U.S. gas distribution proxy group are between BBB+ and A+, similar to FEI's rating of A3 from Moody's (equivalent to Standard and Poor's A-), which evidences these utilities have comparable business and financial risks to FEI.[209] The proxy companies also have at least 70 percent of total operating income derived by regulated operations and 70 percent of regulated operating income derived by natural gas distribution operations. He also verified that none of his proxy companies were currently in the midst of a merger or other significant transaction during the evaluation period.[210]

(b) ***Step 2 - Utility-specific assessment:*** Mr. Coyne then performed an extensive review of each utility's risk profile and how it ranked relative to FEI with respect to its business risk profile. This analysis is important to establish whether the whole proxy group is of equivalent risk, more risky, or less risky than FEI, since no two companies have exactly the same risk profile and differences may warrant

[208] Exhibit B-1, Application, Appendix B, Evidence of Mr. Coyne, p. 29.
[209] Exhibit B-1, Application, Appendix B, Evidence of Mr. Coyne, p. 6.
[210] Exhibit B-1, Application, Appendix B, Evidence of Mr. Coyne, p. 32.

an adjustment to the ROE or capital structure recommendation. Mr. Coyne states in his evidence: [211]

> Notwithstanding the care taken to ensure comparability, market expectations with respect to future risks and growth opportunities vary from company to company. Therefore, even within a group of similarly situated companies, it is common for analytical results to reflect a seemingly wide range. At issue, then, is how to select a ROE estimate in the context of that range. That determination must be based on an assessment of the company-specific risks relative to the proxy group and the informed judgment and experience of the analyst.

187. Mr. Coyne found the U.S. proxy group, on the whole, to have less business risk and less financial risk than FEI.[212] Ultimately, Mr. Coyne did not propose an explicit risk adjustment to increase the ROE or capital structure of FEI relative to the U.S. proxy group. He did estimate that, based on the difference in capital structure alone, an upward adjustment to the U.S. gas proxy group ROE results of 95 to 119 basis points could be warranted to put it on comparable terms with FEI.[213] Mr. Coyne's ROE recommendation and FEI's proposed equity ratio, places FEI's ROE and capital structure more in line with (but still below) the U.S. proxy group results.[214]

188. Dr. Booth's approach to selecting a proxy group stands in sharp contrast to Mr. Coyne's methodical approach. Dr. Booth started with proxy groups of former ROE witnesses. He cross-checked those lists against the one paragraph descriptions of utility activity listed in Google of U.S. Gas companies.[215] The problems with this approach are two-fold.

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[211] Exhibit B-1, Application, Appendix B, Evidence of Mr. Coyne, p. 29.

[212] Exhibit B-1, Application, Appendix B, Evidence of Mr. Coyne, p. 99.

[213] Exhibit B-1, Application, Appendix B, Evidence of Mr. Coyne, p. 102.

[214] Exhibit B-1, Application, Appendix B, Evidence of Mr. Coyne, p. 102.

[215] Tr 3, 589, l. 3 - 591, l. 15 (Booth).

(a) First, the ROE witnesses who prepared the proxy groups are not witnesses in this proceeding and are unable to speak to how they had screened their proxy groups.

(b) Second, and more fundamentally, selecting a proxy group is not a static exercise. Company risk profiles are dynamic and may change over time.[216]

189. Instead of performing his own detailed assessment of the relative risk of the U.S. utilities in his proxy group, Dr. Booth dismissed the results by suggesting that they **might be** overstated due to merger activity: "As robustness checks I also look at beta estimates for a sample of US utilities, where the estimates are somewhat higher, but this could be due to unique effects such as merger activity."[217] Dr. Booth struggled to explain why he did not simply perform his own assessment of the extent to which the results of his analysis were affected by merger activity. This is exemplified in the following exchange:[218]

> MR. GHIKAS: Q: Well, that -- I mean, that's my question. I mean, why would you dismiss the higher beta on the basis that it could be due to merger activity? Why wouldn't you just look and see if it is the result of merger activity, and then screen your proxy group, like Mr. Coyne did?
>
> DR. BOOTH: A: Well, because these companies, as I explained, I didn't choose these companies. I try to avoid -- in every way possible I try to avoid people saying, "How did you choose these companies?" And I chose these companies originally because they were in Ms. McShane's sample, and because they were in the sample of the Brattle Group, which wrote the report for this Commission three years ago. And originally, I said, I don't want to be cross-examined on why this company, why that company. I will just take the nexus, the combination of these two samples used by U.S. utility witnesses. So that hopefully nobody will ever say, "Why is AGO in your sample? Why is Piedmont in your sample?" And I will say it's in my samples because these Americans said that these were low-risk companies. So they're in there because they're samples used by U.S. utility witnesses.

[216] Tr 1, 172, ll. 16-23 (Coyne).

[217] Exhibit C7-7-2, Evidence of Dr. Booth (Corrected), p. 40.

[218] Tr 3, 582, l. 9 - 583, l. 6 (Booth).

190. Dr. Booth acknowledged that others (such as Mr. Coyne) were better situated to examine U.S. companies that he is:[219]

> MR. GHIKAS: Q: And so in selecting your proxy companies you relied on that description as to whether or not they should be in or out or your proxy group?
>
> DR. BOOTH: A: No, I provided that data because I thought it might be useful for the board. As I said, the original sample I created was not my sample it was the nexus of two samples used by U.S. utility witnesses, to which I have three companies which look reasonable, which are also in other peoples samples.
>
> MR. GHIKAS: Q: And the way you concluded that they look reasonable is by looking at the description equivalent to what is on page 20?
>
> DR. BOOTH: A: Well, I thought that would be useful for the board, but it's also useful in the sense that -- it's also reasonable in the sense that these are used by **U.S. utility witnesses that know a lot more about U.S. stocks than I do.**
>
> MR. GHIKAS: Q: Okay.
>
> DR. BOOTH: A: And this was intended to reduce cross-examination, areas of disagreement, Mr. Ghikas, not to cause a problem. **Perhaps next year or at some future date I will just use Mr. Coyne's sample.**
>
> [Emphasis added]

(b) U.S. Utilities Can Be Appropriate Comparables Without Adjustment

191. Mr. Coyne and Dr. Booth have both recognized that there are no publicly-traded, pure-play gas distribution companies in Canada. They have accordingly relied on a sample of U.S. companies that are primarily engaged in natural gas distribution in order to measure the market expectations specific to a gas distribution utility.[220] U.S. utilities can be appropriate comparables and the U.S. data requires no adjustment.

U.S. Utilities Can be Appropriate Comparables

192. Mr. Coyne explained that U.S. companies can be appropriate comparables for use in the various models to estimate a fair ROE for FEI because:

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[219] Tr 3, 590, l. 16 - 590, l. 11 (Booth).

[220] Dr. Booth relied on U.S. data for his DCF analysis: Exhibit C7-7-2, Evidence of Dr. Booth (Corrected), p. 58.

- U.S. and Canadian utilities operate in similar macro-economic environments;
- U.S. and Canadian utilities are governed by comparable regulatory models;
- U.S. and Canadian capital markets are closely linked and move in parallel;
- There is a great deal of cross-border utility investment; and
- Canadian and U.S. utilities compete for capital in a North American market.[221]

193. In terms of broad similarities between the U.S. and Canadian regulatory environments, Mr. Coyne 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.[222] Mr. Coyne demonstrated in his analysis of regulatory risk (Appendix A to his evidence) 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 the majority of the companies in Mr. Coyne's U.S. utility sample, operate in more than one regulatory jurisdiction, which diversifies their regulatory risk.[223] Mr. Coyne explained that, within that context, it is possible to select a group of U.S. utilities with comparable business risk profiles to FEI through a detailed review of each company's risks relative to FEI.

[221] Exhibit B-1, Application, Appendix B, Evidence of Mr. Coyne, p. 87.

[222] Exhibit B-1, Application, Appendix B, Evidence of Mr. Coyne, pp. 8-11.

[223]Exhibit B-1, Application, Appendix B, Evidence of Mr. Coyne, Appendix A.

194. The Commission has recognized the appropriateness of looking to U.S. data for the purposes of estimating utility cost of capital. The Commission stated in the GCOC Stage 1 Decision:[224]

> The Commission Panel reaffirms the 2009 Decision determination on when to use historical and forecast data for US utilities. Canadian utilities need to be able to compete in a global marketplace and be allowed a return for them to do so. In addition, the Panel accepts that there continues to be limited Canadian data upon which to rely and considers that there may be times when natural gas companies operating within the US may prove to be a useful proxy in determining the cost of capital. **Accordingly, we have determined that it is appropriate to continue to accept the use of historical and forecast data for US utilities and securities as outlined in the 2006 Decision and again in the 2009 Decision.**
>
> [Emphasis in original]

195. The Commission clarified that "the use of US data must be considered on a case by case basis and weighed with consideration to the sample being relied upon and any jurisdictional differences which may exist."[225] This is what Mr. Coyne has done.

196. Other Canadian regulators have accepted the relevance of U.S. comparables in the assessment of the cost of equity.

(a) The OEB has stated:[226]

> 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.

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[224] GCOC Stage 1 Decision, p. 19.

[225] GCOC Stage 1 Decision, p. 20.

[226] OEB 2009 Cost of Capital Decision, pp. 21-22.

(b) 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. The NEB answered this issue in the affirmative, concluding that U.S. information was "very informative". At pages 66 and 67 the NEB said:[227]

> 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.

The NEB also found that the regulatory environment in the U.S. and Canada was similar. 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

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[227] National Energy Board, *Trans Québec and Maritimes Pipelines Inc.* Reasons for Decision. RH-1-2008, March 2009 ("TQM Decision"), pp. 66-67 located in Appendix B of original Brattle Group Report).

today, and would thus have little or no impact on cost of capital".[228] The NEB concluded:[229]

> 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.

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

(c) No Adjustments to U.S. Data are Required

198. U.S. data can be used without adjustment, consistent with how both experts have conducted their respective analyses.

199. Mr. Coyne has conducted his analysis such that differences between U.S. and Canadian interest rates and historical market risk premiums do not impact his results. Mr. Coyne has selected a proxy group of comparable risk to FEI, which requires no overall adjustment. He has normalized his CAPM results by using the forecast Canadian risk free rate and North American market risk premium estimate of 7.6 percent for both his Canadian and U.S. proxy groups. Accordingly, any differences in risk between Canadian and U.S. capital markets have already been factored into his analysis.[230]

200. Mr. Coyne demonstrated that, in any event:

[228] TQM Decision, p. 71.

[229] TQM Decision, p. 71.

[230] Exhibit B-1, Application, Appendix B, Evidence of Mr. Coyne, pp. 50-51.

- Higher U.S. interest rates are largely cancelled out by lower U.S. utility credit spreads, such that the differences are very small;[231]

- From a business investment perspective, Canada and the U.S. are highly comparable in a global context;[232] and

- The U.S. and Canadian financial markets are closely linked and highly correlated.[233]

201. Dr. Booth concedes that the market risk premiums in the U.S. and Canada are essentially the same now[234] and did not apply a downward adjustment to his U.S. DCF results. However, at the hearing he suggested that a downward adjustment of 70 to 80 basis points to the returns estimated by reference to U.S. utilities would be appropriate based on interest rate and beta differences between the U.S. and Canada.[235] Leaving aside the fact that Dr. Booth did not make such an adjustment to his own analysis, his suggested adjustment is not appropriate:

(a) First, Dr. Booth's U.S. DCF output was only 7.02[236] percent before flotation costs, which is already unreasonably low for reasons described later. Adjusting his U.S. DCF results downwards as he suggested at the hearing would produce a range of 6.7 and 6.8 percent, inclusive of flotation costs. This is not a credible result.

(b) Total investment risk is a function of business and financial risk. Mr. Coyne's U.S. utility sample had lower business risk and lower financial risk (e.g., higher common equity ratios) than FEI. The average common equity ratio in Mr. Coyne's U.S. utility sample was 52.8 percent compared to FEI's proposed equity

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[231] Tr 3, 665 ll. 2-4 (Booth); Exhibit B-16, FEI Rebuttal Evidence, Rebuttal Evidence of Mr. Coyne, p. 14. Mr. Coyne's comparison of A-rated utility bonds revealed that the difference between U.S. and Canadian A-rated utility bond yields was 11 basis points.

[232] Exhibit B-1, Application, Appendix B, Evidence of Mr. Coyne, pp. 24-25.

[233] Exhibit B-1, Application, Appendix B, Evidence of Mr. Coyne, pp. 25-27.

[234] Tr 3, 662, ll. 21-.23 (Booth).

[235] Tr 3, 664, l. 24 - 665, l. 13 (Booth).

[236] Exhibit C7-7-2, Evidence of Dr. Booth (Corrected), p. 58, l. 26.

ratio of 40 percent.[237] 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.[238]

(c) Dr. Booth suggested that risk differences between the U.S. and Canada as it pertains to regulated utilities can be quantified by looking to differences in A rated utility bonds between the U.S. and Canada. Dr. Booth states:[239]

> If you want to look at interest rates, I'd suggest you look at the A-rated utility, your differences between the U.S. and Canada. And I looked at the triple B and the difference was 70-80 basis point. Mr. Coyne looked at the A rated and indicated the risk differences weren't that big, but they are still there. Canadian bond yields for A rated utilities are lower than they are in the United States.

As Mr. Coyne has shown in his evidence, a comparison of A-rated utility bonds revealed that the difference between U.S. and Canadian A-rated utility bond yields was only 11 basis points.[240]

(d) Dr. Booth's traditional justification for a downward adjustment to U.S. ROE estimates does not hold true anymore. In the GCOC Stage 1 proceeding, Dr. Booth had argued that the greater regulatory protection in Canada justified a downward adjustment to U.S. estimates. This rationale is reflected in the following passage from his 2012 evidence executive summary:[241]

> I would discount the use of estimates from the US since Moody's and other rating reports indicate there is greater regulatory protection in Canada. As a result Canadian utilities obtained higher credit ratings than their US peers even though they have lower ROEs and common equity ratios.

[237] Exhibit B-1, Application, Appendix B, Evidence of Mr. Coyne, p. 101.

[238] Exhibit B-1, Application, Appendix B, Evidence of Mr. Coyne, p. 102.

[239] Tr 3, 664, l. 24 - 665, l. 6 (Booth).

[240] Exhibit B-16, FEI Rebuttal Evidence, Rebuttal Evidence of Mr. Coyne, p. 14.

[241] Exhibit B-26, p. 28.

Moody's September 2013 report titled "Proposed Refinements to the Regulated Utilities Rating Methodology and our Evolving View of US Utility Regulation" illustrates how the regulatory frameworks in the U.S. and Canada are coming to be seen as comparable.[242] Moody's states:

> Based on our observations of trends and events, we propose to adopt a generally more favorable view of the relative credit supportiveness of the US utility regulatory environment. Our updated view considers improving regulatory trends that include the increased prevalence of automatic cost recovery provisions, reduced regulatory lag, and generally fair and open relationships between utilities and regulators. While US state regulatory environments have been characterized by a process that is more openly adversarial than some other global jurisdictions, there have been very few instances where eventual regulatory outcomes deviated enough from the established regulatory framework to severely undercut utility creditworthiness. In the few instances where inconsistent regulatory decisions have led to serious credit stress, courts have proved to be a reliable secondary support for utility credit worthiness through rulings that mandate that regulatory decisions must follow the established regulatory framework.

(d) Summary

202. 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 Mr. Coyne are comparable based on overall investment risk. No further adjustments to the data are required.

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

203. Mr. Coyne applied DCF analysis in a methodologically sound manner that produced reasonable results. Mr. Coyne's use of multi-stage DCF analysis rendered moot the typical critique of the constant growth (or "Gordon Growth") model. Dr. Booth's expressed concern regarding analyst bias is overstated in the utility context, has previously been

[242] Exhibit B-8, AMPC-FEI(Concentric) IR 1.4.2.

characterized as “unhelpful” by the Commission, and is addressed in any event by Mr. Coyne’s use of a multi-stage DCF model. Dr. Booth performed a U.S. sustainable growth DCF approach on a selection of U.S. utilities, but it was implemented in a manner that guaranteed utility growth would be understated.

(a) Mr. Coyne’s Approach to DCF Estimate is Methodologically Sound

204. Mr. Coyne created both constant growth DCF and multi-stage DCF models for the Canadian and U.S. proxy groups, but only used the multi-stage DCF models to inform his recommendation. Though his evidence indicates that a carefully selected group of U.S. proxy companies is more like FEI than the Canadian proxy companies due to their business profiles, Mr. Coyne gave them equal weight in his recommendation because of the importance of a Canadian perspective.[243] The nominal GDP growth rates for both proxy groups were developed using available data for each country from Consensus Economics, Inc.[244] As discussed in Section E above, the U.S. proxy group was based on a careful screening of the universe of U.S. companies to select those most comparable to FEI.[245]

205. Leaving aside the constant growth DCF results, the Canadian and U.S. multi-stage DCF results are 9.82 percent and 8.89 percent, respectively.[246]

(b) Mr. Coyne Relied on Multi-Stage DCF Model, Not Constant Growth Model

206. Dr. Booth’s first criticism about the use of the DCF model, i.e., that using a constant growth rate for the utility sector in perpetuity would ultimately exceed the growth rate for the economy as a whole, relates only to the constant growth DCF model (or “Gordon

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[243] Exhibit B-1, Application, Appendix B, Evidence of Mr. Coyne, pp. 5-6.
[244] Exhibit B-1, Application, Appendix B, Evidence of Mr. Coyne, p. 59.
[245] Exhibit B-1, Application, Appendix B, Evidence of Mr. Coyne, p. 6.
[246] Exhibit B-1, Application, Appendix B, Evidence of Mr. Coyne, p. 60.

Growth" model). Mr. Coyne gave it no weight in reaching his recommendation in recognition of the Commission's comments about the model in the GCOC Stage 1 Decision.[247]

(c) No Evidence of Analyst Bias in Growth Forecasts

207. Dr. Booth's other main argument against relying on unadjusted DCF results was his view that optimism bias exists in analyst growth forecasts. The Commission should, for the following reasons, find that the growth forecasts used in the determination of a fair ROE for FEI are free of bias.

208. 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."[248] The Brattle Group stated:[249]

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

209. Dr. Booth has admitted, both in the GCOC hearing and in this proceeding, that any optimism bias is likely to be less evident in utilities than in other sectors of the economy.[250] At Appendix D of his evidence, Dr. Booth stated: "The very high dividend payout means that the growth potential for these utilities is low, which reduces the error in using the DCF model."[251]

210. Second, the Brattle Group noted that there is "substantial academic evidence that analyst earnings estimates are superior to other forecasts."[252]

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[247] Exhibit B-1, Application, Appendix B, Evidence of Mr. Coyne, pp. 7, 38-39, 58-60.

[248] Exhibit A2-3, Brattle Group Report, p. 28.

[249] Exhibit A2-3, Brattle Group Report, p. 29.

[250] Exhibit B-26, p. 21 (Tr 8, 1576, ll. 7-13 (Booth)).

[251] Exhibit C7-7-2, Evidence of Dr. Booth (Corrected), Appendix D, p. 11, ll. 19-20.

[252] Exhibit A2-3, Brattle Group Report, p. 28.

211. Third, Mr. Coyne identified several factors that explain why the "substantial academic evidence" stands to reason.[253]

(a) Industry analysts are experts on the companies they follow: they understand the risks attendant to investing in the various utilities within their coverage universe, they receive earnings guidance from the utilities themselves, and they have the opportunity to speak with utility management.[254]

(b) Equity analysts have no incentive to provide optimistic research reports used by institutional clients, as credibility is important in maintaining client relationships.[255]

(c) Several regulatory changes have been implemented, both in Canada and the U.S., that are designed to provide fair disclosure and eliminate the possibility of analysts' bias.[256] Mr. Coyne cited a 2010 article in *Financial Analyst Journal* which found that analyst forecast bias had declined significantly or disappeared entirely since the Global Settlement.[257]

212. Fourth, in each of the last three cost of capital proceedings, the Commission has rejected Dr. Booth's assertion that upward bias in growth forecasts requires adjustments to DCF results.

(a) In the 2006 Decision the Commission characterized Dr. Booth's evidence in this regard as unhelpful:[258]

> 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

[253] Exhibit B-1, Application, Appendix B, Evidence of Mr. Coyne, pp. 55-56.
[254] Exhibit B-16, FEI Rebuttal Evidence, Rebuttal Evidence of Mr. Coyne, p. 37.
[255] Exhibit B-16, FEI Rebuttal Evidence, Rebuttal Evidence of Mr. Coyne, pp. 37-38.
[256] Exhibit B-1, Application, Appendix B, Evidence of Mr. Coyne, pp. 55-56.
[257] Exhibit B-1, Application, Appendix B, Evidence of Mr. Coyne, p. 56.
[258] 2006 ROE Decision, p. 55.

> 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 ….

(b) The argument of "upward bias" of analyst estimates was again advanced by interveners and Dr. Booth in 2009, and again the Commission rejected the argument:[259]

> 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.

(c) In the GCOC Stage 1 Decision, the Commission found as follows:[260]

> The Panel finds that there is reason to be cautious of potential analyst bias in the utility sector. The expert testimony at this time does not, however, convince the Panel that an adjustment for analyst bias should be made.

213. In any event, Mr. Coyne's multi-stage DCF analysis limits the use of analyst growth rates to the initial years of the model. After five years, the model reflects GDP growth or the transition to GDP growth.[261]

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[259] 2009 ROE Decision, p. 45.

[260] GCOC Stage 1 Decision, p. 71.

[261] Exhibit B-16, FEI Rebuttal Evidence, Rebuttal Evidence of Mr. Coyne, p. 38.

(d) Dr. Booth's Sustainable Growth Model

214. Dr. Booth implemented his U.S. utility sustainable growth DCF approach using a simplified assumption that guaranteed future utility growth, and the resulting DCF value, would be understated.

215. Dr. Booth's simplified form of the sustainable growth DCF model treated reinvestment of retained earnings as the only source of utility growth, which is not realistic. Utilities also generate growth through new injections of equity, and such injections of capital are reflected in the full form of sustainable growth DCF model. Mr. Coyne highlighted how excluding this source of growth underestimates utility growth estimates and DCF results:[262]

> The full form of the "sustainable growth" model is premised on the proposition that a firm's growth is a function of its expected earnings, and the extent to which it retains earnings to invest in the enterprise. In the sustainable growth formula, this is commonly referred to as the product of "b x r", where "b" is the retention ratio or the portion of net income not paid in dividends, and "r" is the expected ROE on the portion of net income that is retained within the Company as a means for future growth. In the fullest form of the sustainable growth formula, new equity issuances, or what are commonly known as externally generated funds are also considered, this is shown as the product of "s x v", where "s" represents the growth in shares outstanding and "v" is that portion of the M/B ratio that exceeds unity. This methodology is recognized as a common approach to calculating the sustainable growth rate. The form of the model that Dr. Booth has relied upon is its simplest form, projecting growth as a function of internally generated funds. The "b x r" method fails to account for future equity issuances and no sustainable growth formula considers debt leverage as a source of future growth for an entity. Failure to consider the potential for debt and equity issuances as a source of future growth understates the firm's growth under this model.

216. During the hearing, Dr. Booth admitted that he has in the past included the impact of external equity financing in his sustainable growth DCF models.[263] Mr. Coyne's past application of the sustainable growth DCF model (which predated FERC's abandonment of the

[262] Exhibit B-16, FEI Rebuttal Evidence, Rebuttal Evidence of Mr. Coyne, pp. 35-36.

[263] Tr 3, 501, ll. 7-14 (Booth).

sustainable growth DCF model[264]) had also considered the impact of external equity financing.[265]

217. Dr. Booth suggested that the total impact of including the incremental source of financing would be negligible, assuming (a) that utility's market to book value is close to one, and (b) the growth in shares outstanding is very small:[266]

> Well, it's both S&V. The market-to book ratio -- if the market-to-book ratio is one, then the adjustment is zero. If S, the new equity issue is percentage of the capital stock is negligible, then it's zero.

218. The problem with Dr. Booth's assumptions is that market to book ratios for all eight of the U.S. utilities that he used to calculate both his beta estimates in his Risk Premium Model and his sustainable growth DCF model are significantly higher than one.[267] On Dr. Booth's logic, this would yield a higher DCF result than what he has presented.

(e) Conclusion on DCF Approach

219. The Commission should continue to give DCF analysis considerable weight in the determination of a fair ROE for FEI. Mr. Coyne has weighted his multi-stage DCF results equally with CAPM results in recognition of the GCOC Stage 1 Decision, but there is a compelling case to give his multi-stage DCF estimates more weight in the present circumstances. Mr. Coyne's DCF modelling was robust and employed reasonable inputs.

G. APPLICATION OF THE CAPM / RISK PREMIUM MODEL

220. The outputs of the CAPM / Risk Premium Model are influenced by decisions made at each stage of the analysis (risk free rate, market risk premium, and beta). Mr. Coyne's inputs are sound and transparent. Dr. Booth has, in a number of respects, substituted his judgment for his empirical results, and the result is still too low. He has sought to adjust for the

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[264] Exhibit B-16, FEI Rebuttal Evidence, Rebuttal Evidence of Mr. Coyne, p. 36.
[265] Exhibit B-27.
[266] Tr 3, 625, l. 23 - 626, l. 1 (Booth).
[267] Exhibit B-28.

low results, but now has “less faith” in his primary adjustment. To the extent the Commission intends to give weight to a CAPM-based model, Mr. Coyne’s CAPM results should be preferred to the results of Dr. Booth’s Risk Premium Model.

(a) Risk Free Rate Should Be Determined Using Long-Term Investor Perspective

221. Mr. Coyne and Dr. Booth both relied on a forecast risk-free rate in their application of the CAPM / Risk Premium Model. They both used forecasts of the 30-year Government of Canada bond yield as the proxy for the risk-free rate. Both witnesses 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 Canada bond yield. However, they differ on the duration of the forecast. Mr. Coyne’s approach is most reasonable and should be accepted.

222. Mr. Coyne used the three year forecast primarily to establish a forward looking bond yield that anticipates changes in the long Canada bond over the next few years while reflecting the long-term perspective of the utility shareholder. Dr. Booth used one year (2016), which happens to be the lowest rate anticipated over the next few years.

223. Mr. Coyne explained during the hearing why a three year forecast is the preferred indicator of the risk-free rate, particularly in the face of dynamic and abnormal market conditions:[268]

> What I’m saying is that we know conditions are abnormal now. Dr. Booth goes through an exercise he calls “Operation Twist”, to try to account for abnormal bond yields in the government bond yield market. And the approach that I take is to look to a consensus forecast, and to see what looks like a return to something that's in equilibrium. Just as this commission did in 2012, it made a determination that there should be a floor of the risk-free rate, on a judgment that needed to be something that at least looked like an equilibrium risk-free rate, in order for it to be sensible for a cost of equity determination.

[268] Tr 1, 186, l. 18 - 187, l. 13 (Coyne). See also Exhibit B-16, FEI Rebuttal Evidence, Rebuttal Evidence of Mr. Coyne, p. 25.

> So that's the very same logic here. The difference is that I am not trying to estimate it myself. I am looking at this consensus forecast and I am looking at the shape of it. Because it flattens out once you get to 2018. So it tells me that in that range it gets you to something that looks like an equilibrium or more normalized level of risk free bond yield. So, that's the logic. I'm not trying to pinpoint one year, or three years for that matter.

224. Mr. Coyne's forecast interest rate of 3.68 percent, based on 2016-2018 forecast data from the Consensus Survey, is very near to the RBC forecast that Dr. Booth has included on page 23 of his testimony, of 3.65 percent for Q4 2017. Mr. Coyne's estimate of the risk free rate is reasonable and is in general agreement with the evidence that Dr. Booth has provided in his testimony.[269]

(b) Mr. Coyne's Market Risk Premium Estimate Should Be Preferred

225. The following paragraphs address the constituent elements of their respective analyses used to derive equity market risk premium estimates. FEI submits that the evidence of Mr. Coyne should be accepted. Mr. Coyne applied an appropriate methodology that accounts for the fact that historic market risk premium data dating back decades may not properly reflect expectations of investors today. Dr. Booth's approach to determining a market risk premium is suspect, and his results are counterintuitive and unreasonably low in the current conditions.

Mr. Coyne's Approach to Determining the MRP

226. Mr. Coyne employed a Market Risk Premium that is a combination of both Canadian and U.S. market inputs, including both historic and forward looking estimates. This is appropriate.

227. Mr. Coyne begins the calculation of the market risk premium with the long-horizon equity risk premia data averaged over the longest period for which data were available

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[269] Exhibit B-16, FEI Rebuttal Evidence, Rebuttal Evidence of Mr. Coyne, p. 25.

from Duff & Phelps for both the U.S. and Canada.[270] He incorporates a forward-looking risk premium (ex-ante) estimate to mitigate the inability of the long term historical average to respond to changes in capital market conditions. His ex-ante risk premium is based on capital market conditions on August 31, 2015, using forward projections of the return on the relevant market indices less the risk-free rate. He used a forecast of the 30-year bond yield in his calculation of the ex-ante risk premium, which arguably lowers and moderates the risk premium result by the difference between the 30-year bond yield at August 31, 2015 (2.23%) and the forecast bond yield he used to calculate the forward-looking market risk premium of (3.68%).[271]

228. The forward return projections used in the computation of the forward-looking market risk premiums were derived by calculating the implied market ROE on a market-capitalization-weighted basis for the individual companies in each broad market index. Mr. Coyne used the DCF methodology to determine the implied expected market return. Using this method, he subtracted the forecast risk free rate from the expected market returns to arrive at the forward-looking equity risk premia results of 9.78 percent and 8.08 percent, respectively, for Canada and the U.S.[272]

229. Mr. Coyne used both an ex-ante and an ex-post derivation of the Market Risk Premium and averaged both the Canadian and U.S. equity risk premiums to derive a combined North American equity risk premium. The Market Risk Premium he utilized in his CAPM is 7.6 percent. Combining U.S. and Canadian equity risk premiums into a single North American market risk premium is appropriate since the equity markets in the U.S. and Canada are more similar than not, and there is no reason to expect a divergence in market risk premiums going forward.[273]

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[270] Exhibit B-1, Application, Appendix B, Evidence of Mr. Coyne, p. 46.
[271] Exhibit B-1, Application, Appendix B, Evidence of Mr. Coyne, p. 47.
[272] Exhibit B-1, Application, Appendix B, Evidence of Mr. Coyne, p. 48.
[273] Exhibit B-1, Application, Appendix B, Evidence of Mr. Coyne, p. 49.

230. Mr. Coyne tested his market risk premium estimates by conducting a regression analysis on long Canada bond yields and annual market risk premiums calculated by Morningstar Ibbotson through 2011; and by Duff & Phelps thereafter. He isolated the effects of the global financial crisis in 2008 as an anomalous event that did not align with the normal relationship between treasury yields and market risk premiums and set this period aside by assigning a dummy variable to it.[274]

231. Mr. Coyne's analysis yielded a statistically significant value at the 85 percent confidence level, which in his opinion is informative of the relationship between bond yields and market risk premiums. Mr. Coyne notes that the coefficient for 30-year bond yields is negative 1.11, such that a decrease in the bond yields results in an almost equal increase in the market risk premium - evidence that the market risk premium and bond yields are inversely related.[275] This regression analysis further indicates that in the current record low interest rate environment, the ex-post (historic) MRP estimate alone does not produce a reliable estimate and should be supplemented by other analysis.

232. Applying this MRP to the full expression of the CAPM formula, using the Canadian proxy group average beta of 0.65, would yield a ROE of 10.19 percent, when the Canada long bond is 3.68 percent; and 9.78 percent, when the Canada long bond yield is equal to the August 31, 2015 value of 2.23 percent.[276]

Dr. Booth's Approach to the Market Risk Premium

233. Dr. Booth concluded based on the long-term historical data that his direct estimate of the market risk premium is about 4.6%.[277] However, he substituted a higher MRP for the output of his calculations.

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[274] Exhibit B-1, Application, Appendix B, Evidence of Mr. Coyne, p. 49.
[275] Exhibit B-1, Application, Appendix B, Evidence of Mr. Coyne, pp. 49-50.
[276] Exhibit B-1, Application, Appendix B, Evidence of Mr. Coyne, p. 50.
[277] Exhibit C7-7-2, Evidence of Dr. Booth (Corrected), Appendix B, p. 13.

234. It is no surprise that Dr. Booth reached such a low MRP. Determining a market risk premium using historic data implicitly assumes that past returns are the only factor informing future expected market returns. The ex-post market risk premium provides a longer view of the investment horizon and may provide a better estimate of how the market will perform over a very long investment horizon, but is insufficiently sensitive to changes in interest rates and the prevailing economic environment.[278] The shortcoming of using such a long horizon equity risk premia that it tends to be unreliable in a low interest rate environment. Since both the U.S. and Canadian economies have enjoyed a prolonged low interest rate environment, which seems to have accelerated downwards recently, it should be expected that the historical arithmetic average will understate the current market risk premium.[279]

235. Dr. Booth implicitly concedes that his calculated MRP of 4.6 percent is too low by not using the results of his own calculation.

236. Dr. Booth points to the Fernandez survey (which puts the market risk premium in the range of 5.0% to 6.0%) as support for his Canadian market risk premium of between 5.0% to 6.0%.[280]

237. While relying on a survey might have some appeal, Dr. Booth's approach is problematic in several respects.

(a) It is not clear from the survey how the respondents derived the market risk premium they listed in their response, e.g. the source for their information.

(b) Nor does the survey establish for what use the respondents applied the market risk premium estimate.

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[278] Exhibit B-1, Application, Appendix B, Evidence of Mr. Coyne, p. 45.

[279] Exhibit B-1, Application, Appendix B, Evidence of Mr. Coyne, p. 47.

[280] Exhibit C7-7-2, Evidence of Dr. Booth (Corrected), Appendix B, p. 12.

(c) There is also a limited sample for Canada, and the responses vary widely. For Canada, the survey received 81 responses with a mean response of 5.9 percent, with a maximum of 12 percent and a minimum of 4 percent. The standard deviation of the responses was 1.3 percent, indicating that the majority of responses were between 4.6 percent and 7.2 percent.[281] In Mr. Coyne's view, the wide range of responses illustrates the importance of alternate measures of the market risk premium.[282]

238. FEI submits that the Commission should accept Mr. Coyne's estimate, given the level of rigour he applied in the determination of the MRP.

(c) Value Line and Bloomberg Adjusted Betas Should Be Used

239. Mr. Coyne and Dr. Booth provided estimates of the relative risk adjustment (beta) to the equity market risk premium that is required. A beta for a company that is lower risk than the market, like most utilities, will be less than 1.0. The following paragraphs summarize the witnesses' approaches and explain why Mr. Coyne's approach and results are to be preferred.

Mr. Coyne's Approach to Beta

240. Mr. Coyne examined several methods of measuring the beta coefficient for both the Canadian proxy group and the U.S. gas distribution proxy group companies using estimates from both Value Line and Bloomberg.[283] The way in which Value Line and Bloomberg raw betas are calculated is transparent. Both Value Line and Bloomberg betas already incorporate an adjustment, referred to as the "Blume adjustment"[284], to recognize the observed tendency of low (high) beta stocks to achieve higher (lower) returns than predicted by the CAPM.[285] The

[281] Exhibit B-16, FEI Rebuttal Evidence, Rebuttal Evidence of Mr. Coyne, p. 26.

[282] Exhibit B-16, FEI Rebuttal Evidence, Rebuttal Evidence of Mr. Coyne, p. 26.

[283] Exhibit B-1, Application, Appendix B, Evidence of Mr. Coyne, p. 42.

[284] Exhibit B-1, Application, Appendix B, Evidence of Mr. Coyne, pp. 43-44.

[285] Exhibit B-1, Application, Appendix B, Evidence of Mr. Coyne, p. 36.

Value Line and Bloomberg estimates used in Mr. Coyne's analyses for U.S. and Canadian proxy groups were 0.78 and 0.65, respectively.[286]

241. 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 traditional CAPM. Utility stocks are low beta stocks, and thus the empirical evidence suggests their returns are understated by the CAPM. The Brattle Group described the issue as follows:[287]

> 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.

242. Mr. Coyne's own data analysis confirmed that the true relative risk for low beta stocks like Canadian utility stocks is higher than their calculated betas indicate.[288] This is true even when adjusted to the market mean using the widely-used Blume adjustment.

243. Despite the support for the Blume adjustment in academic literature,[289] its use by Value Line and Bloomberg, and its widespread acceptance by regulators[290], Dr. Booth dismissed the use of adjusted betas as a "mechanical adjustment…favoured by utility witnesses".[291] Mr. Coyne explained that, in his experience, the Blume adjustment is widely used and accepted in every regulatory jurisdiction without debate except those jurisdictions in which Dr. Booth testifies. Although Dr. Booth is dismissive of the Blume adjustment,[292] he

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[286] Exhibit B-1, Application, Appendix B, Evidence of Mr. Coyne, pp. 44, 50.

[287] Exhibit A2-3, Brattle Group Report, p. 25.

[288] Exhibit B-16, FEI Rebuttal Evidence, Rebuttal Evidence of Mr. Coyne, p. 28.

[289] Exhibit B-31.

[290] Tr 2, 231, ll. 6-13 (Coyne).

[291] Exhibit C7-7-2, Evidence of Dr. Booth (Corrected), Appendix C, p. 8.

[292] Exhibit C7-7-2, Evidence of Dr. Booth (Corrected), Appendix C, p. 8.

needed to judgmentally adjust (by almost 100%) his raw betas to justify using his generic utility beta.[293]

244. Adjusting to the grand mean of utility betas, an option raised by Dr. Booth, is not a suitable substitute for the Blume adjustment. Adjustment towards the market mean of 1.0 recognizes that beta tends to underestimate the risk of utilities by the inability to recognize interest rate risk in the calculation of beta for interest-rate sensitive firms. Conventional betas do not capture the extra sensitivity to interest rates. The negatively biased error terms for low beta firms, and the additional risk inherent in interest rate sensitive firms, are two factors that are not reflected in beta adjustment toward the grand mean of utility betas, and as a result, understate the beta estimate.[294]

Dr. Booth's Approach to Beta

245. Although Dr. Booth is critical of the Blume adjustment, and indicates that adjusting to the grand mean of utility betas makes little difference from the raw betas, his own beta in his Risk Premium analysis bears no relationship to his raw betas. Dr. Booth's Risk Premium Model results incorporated a relative risk adjustment reflecting a "generic" utility beta of 0.45 to 0.55.[295] In fact, Dr. Booth has used the same generic beta value in all of his evidence for at least ten years.[296]

246. This approach of using a generic beta bears no relationship to investor experience. Betas change over time.[297] The Blume adjustment, which is applied to raw betas as they change over time, reflects the variable nature of beta in a manner that is supported by empirical research. Dr. Booth's approach is opaque and counterintuitive.

[293] Exhibit C7-7-2, Evidence of Dr. Booth (Corrected), Appendix C, pp. 8-11.

[294] Exhibit B-16, FEI Rebuttal Evidence, Rebuttal Evidence of Mr. Coyne, p. 28.

[295] Exhibit C7-7-2, Evidence of Dr. Booth (Corrected), Appendix C, p. 11.

[296] Tr 3, 572, ll. 10-13 (Booth).

[297] Exhibit B-16, FEI Rebuttal Evidence, Rebuttal Evidence of Mr. Coyne, p. 30.

Summary on Beta

247. The beta to be used in assessing the market risk of FEI should be calculated using the Blume adjustment. This adjustment produces betas of 0.65 and 0.78 for the Canadian and U.S. proxy groups, respectively. The evidence of Mr. Coyne demonstrates that such a relative risk adjustment is reasonable, and that Dr. Booth's chosen beta is unreasonably low.

(d) Dr. Booth's Credit Spread and "Operation Twist" Adjustments Insufficient to Address Unreasonably Low CAPM Results

248. As discussed in Part Three, Section D of this Submission, Dr. Booth made two upward adjustments to his CAPM results to address the fact that the CAPM underestimates both the market cost of equity and the cost of equity for utilities at this time. Despite increasing his CAPM results from 6.03% to 7.78%, the adjustments are insufficient to compensate for current conditions even based on Dr. Booth's own logic and data.

(e) Conclusions Respecting CAPM / Risk Premium Model

249. FEI submits, for the reasons described above, that the outcomes of Mr. Coyne's analysis should be given greater weight than the unreasonably low Risk Premium Model estimates advanced by Dr. Booth. Even Dr. Booth's low Risk Premium Model output, before addressing the downward bias in elements of his analysis,[298] is above his recommended ROE of 7.50 percent.

H. FINANCING FLEXIBILITY ADJUSTMENT OF 50 BASIS POINTS

250. The Commission should employ a financing flexibility adjustment to the estimated market-based utility cost of equity, consistent with past precedent and the expert evidence. Mr. Coyne and Dr. Booth 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

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[298] Tr 3, 520, l. 7 - 524, l. 4 (Booth).

without impairing its financial integrity, i.e., the financial integrity standard. An adjustment of 50 basis points is common regulatory practice in Canada.[299]

I. CONCLUSIONS REGARDING FAIR ROE

251. In past proceedings, the Commission has always given weight to more than one test, recognizing the inherent difficulties in relying on any individual model like the CAPM. In the current circumstances, the Commission should give at least equal weight to DCF results. It should prefer the estimates of Mr. Coyne. His analysis demonstrates that the current allowed ROE is still too low, and that a ROE of 9.5% on 40% common equity meets the Fair Return Standard.

[299] Exhibit B-9, BCUC-FEI IR 1.39.1.

PART SEVEN: AUTOMATIC ADJUSTMENT MECHANISMS

252. In the GCOC Stage 1 Decision, the Commission Panel adopted a two variable formula similar to those adopted at the time by Ontario and Québec that consider the changes in both Long Term Canadian Bond Forecast and the changes to the utility bond spread. To avoid the downward bias inherent in the formula, the Commission also decided to make the application of the formula conditional upon the actual long term Canadian bond yield meeting or exceeding a threshold of 3.8 percent. Since 2013, the Canadian long term bond yield has remained below the 3.8 percent threshold and therefore the AAM has not been applied to FEI's ROE.[300]

253. 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 rationale for an AAM does not currently hold. If the Commission requires a ROE AAM as an outcome of this Proceeding, then it should continue to use the two factor model to capture corporate credit conditions as well as the level of prevailing risk free bond rates, consistent with Mr. Coyne's recommendation.[301]

254. The Commission sought comfort in the applicability of AAMs in Québec and Ontario and stated that "the application of similar models within both Ontario and Québec supports it [*sic*] usefulness and acceptance".[302] Since the GCOC Stage 1 and Stage 2 Proceedings, Québec has suspended application of its own formula.[303]

255. The primary rationale advanced for using an AAM is efficiency; however it has not led to an adjustment in ROE since it was put into place in 2013. Dr. Booth also opines that

[300] Exhibit B-12, CEC-FEI IR 2.56.2.1.

[301] Exhibit B-1, Application, Appendix B, Evidence of Mr. Coyne, p. 103.

[302] GCOC Stage 1 Decision, p. 90.

[303] Exhibit B-1, Application, p. 32.

he does not expect it to be triggered over the next three years.[304] Mr. Coyne's evidence is that if the Commission continues to use an AAM, it should continue to use the two factor model to capture corporate credit conditions as well as the level of prevailing risk free bond rates.[305]

[304] Exhibit C7-7-2, Evidence of Dr. Booth (Corrected), p. 2.
[305] Exhibit B-1, Application, Appendix B, Evidence of Mr. Coyne, p. 103.

PART EIGHT: CONCLUSION AND ORDER SOUGHT

256. FEI submits that, based on the totality of the evidence, the Fair Return Standard is met for the benchmark FEI with a ROE of 9.5%, based on a 40% common equity ratio. The Commission should approve those changes.

ALL OF WHICH IS RESPECTFULLY SUBMITTED.

Dated:	April 3, 2016	***[original signed by Matthew Ghikas]*** Matthew Ghikas Counsel for FortisBC Energy Inc.
Dated:	April 3, 2016	***[original signed by Tariq Ahmed]*** Tariq Ahmed Counsel for FortisBC Energy Inc.

BOOK OF AUTHORITIES

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INDEX

1. *British Columbia Electric Railway Co. v. Public Utilities Commission*, [1960] S.C.R. 837 at 848 and 856-857

2. *TransCanada PipeLines Ltd. v. National Energy Board,* 2004 FCA 149

3. *Northwestern Utilities Ltd. v. Edmonton (City),* [1929] S.C.R. 186

4. *Bluefield Water Works & Improvement Co. v. Public Service Commission of West Virginia*, 262 U.S. 679 (1923)

5. *Federal Power Commission v. Hope Natural Gas Company,* 320 U.S. 591 (1944)

BRITISH COLUMBIA ELECTRIC RAILWAY CO. LTD. .... APPELLANT;

1960

*May 4, 5, 6
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. *v.* PUBLIC UTILITIES COMMISSION OF B.C. *et al.*

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 Columbia[1], 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;

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

1960
B.C. ELECTRIC RAILWAY CO. LTD. v. PUBLIC UTILITIES COMMISSION OF B.C. et al.
Kerwin C.J.

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 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, 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.

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.

1960 B.C. ELECTRIC RAILWAY CO. LTD. v. PUBLIC UTILITIES COMMISSION OF B.C. et al. Locke J.

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.

1960
B.C. ELECTRIC RAILWAY CO. LTD. v. PUBLIC UTILITIES COMMISSION OF B.C. et al.
Locke J.

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

1960

B.C. ELECTRIC RAILWAY CO. LTD. v. PUBLIC UTILITIES COMMISSION OF B.C. *et al.*

Locke J.

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.

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.

1960
B.C. ELECTRIC RAILWAY CO. LTD. v. PUBLIC UTILITIES COMMISSION OF B.C. et al.
Martland J.

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:—

1960

B.C. ELECTRIC RAILWAY CO. LTD. *v.* PUBLIC UTILITIES COMMISSION OF B.C. *et al.*

Martland J.

(*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 Court[1], 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 the weight to be assigned is outside any statutory requirement and must be a question of fact for the Commission in each instance.

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

1960
B.C. ELECTRIC RAILWAY CO. LTD. *v.* PUBLIC UTILITIES COMMISSION OF B.C. *et al.*
Martland J.

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 descripiton 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

1960 B.C. ELECTRIC RAILWAY CO. LTD. v. PUBLIC UTILITIES COMMISSION OF B.C. et al. Martland J.

(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.*

Solicitor for the appellant: A. Bruce Robertson, Vancouver.

Solicitors for The Public Utilities Commission of British Columbia, respondent: Clark, Wilson, Clark, White & Maguire, Vancouver.

Solicitors 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: Straith, O'Grady, Buchan, Smith & Whitley, Victoria.

Solicitor for City of Vancouver, respondent: R. K. Baker, Vancouver.

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

[2004] F.C.J. No. 654

[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 allocating 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:

Alan J. Lenczner, Risa M. Kirshblum and Wendy Moreland, for the applicant.
Margery Fowke, for the respondent, National Energy Board.
John J. Marshall, Q.C., and Don Davies, for the respondent, Canadian Association of Petroleum Producers.
Alan Mark, for the respondent, Coral Energy Inc.
Peter C.P. Thompson, Q.C., and Vincent J. DeRose, for the respondent, Industrial Gas Users Association.
Keith F. Miller, for the respondent, Mirant Energy Marketing Canada Inc.
John Turcnin and Sara Blake, for the respondent, Ontario Minister of Energy.

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% X 0.60 + 10% X 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 ATWACC 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 Being Appealed

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

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*Oct. 24.
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*Feb. 5.

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.

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

*PRESENT:—Anglin C.J.C. and Mignault, Rinfret, Lamont and Smith JJ.

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 in 1922. This put the whole question of a fair return at large and 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.

1929

NORTH-WESTERN UTILITIES LTD. v. CITY OF EDMONTON.

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 the 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.

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

1929

NORTH-WESTERN UTILITIES LTD. v. CITY OF EDMONTON.

Lamont J.

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

1929

NORTH-WESTERN UTILITIES LTD. v. CITY OF EDMONTON.

Lamont J.

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 that 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 in securities in which moneys were ordinarily 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 investment. 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.

1929

NORTH-WESTERN UTILITIES LTD. v. CITY OF EDMONTON.

Lamont J.

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 satisfaction of 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 contention cannot be made effective. In the first place, it 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. 47 (1*a*) 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 shall 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 were 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.

1929

NORTH-WESTERN UTILITIES LTD. v. CITY OF EDMONTON.

Smith J.

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 this 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, evi-

1929 NORTH-WESTERN UTILITIES LTD. v. CITY OF EDMONTON. Smith J.

dence 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.

Solicitors for Northwestern Utilities, Limited: *Milner, Carr, Dafoe & Poirier.*

Solicitor for the City of Edmonton: *John C. F. Bown.*

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

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. --

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.

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 exenses; 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

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.

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] 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 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 cst 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 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 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 besustained. 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 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

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.

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]

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 war 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]**

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]**

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

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]

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

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

[*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.

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.

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

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*

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 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 grantee delay rentals as compensation for postponed drilling. When a producing well is successfully brought in, the gas lease customarily continues indefinitely 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 tax [15] 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

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. **[*610]** *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 thereto [20] 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.

[*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 exemptions [21] 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 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 industry [24] 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 users [27] 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 §

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

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 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

(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 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.

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, 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]

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.

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.

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 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 *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.

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., 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, 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 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, 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 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 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 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 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.