



1 A. In my opinion, a capital structure containing 60% debt and 40% common equity,  
2 which is representative of FortisBC's actual capital structure, is reasonable.  
3 However, given the utility's capital expenditure requirements, a 40% equity ratio  
4 should be viewed as the minimum necessary to provide adequate financing  
5 flexibility.

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7 With respect to the equity risk premium, I recommend that an incremental risk  
8 premium of 50-100 basis points (mid-point of 75 basis points) relative to that  
9 applicable to a low risk benchmark utility be allowed for FortisBC.

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## 11 **II. CAPITAL STRUCTURE**

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### 13 **A. APPROACH TO DETERMINING CAPITAL STRUCTURE AND EQUITY** 14 **RISK PREMIUM FOR FORTISBC**

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16 Q. Please summarize the basic financial principles that underpin the determination of  
17 a reasonable capital structure and return on equity for a regulated utility.

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19 A. The opportunity cost of capital to a firm, or division of a firm, is a function of its  
20 business risks. The financing of the assets with a combination of debt and equity  
21 can lower the overall (weighted average) cost of capital because interest expense  
22 on the debt is tax deductible. However, too much debt will increase the weighted  
23 average cost, as the costs associated with financial distress will outweigh the  
24 benefits of additional debt.

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26 In principle, the capital structure decision should attempt to minimize the overall  
27 cost of capital, i.e., to achieve an optimal capital structure. In practice, the  
28 optimal capital structure cannot be pinpointed as there exists a range of capital  
29 structures over which the weighted average cost of capital does not change  
30 materially.

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1           There are two basic approaches that can be used to establish the appropriate  
2           capital structure and return on equity for FortisBC. The first is to establish for the  
3           company a capital structure that would result in a “low risk benchmark utility  
4           return” being directly applicable to FortisBC. This type of approach is analogous  
5           to that employed by the National Energy Board when it established its automatic  
6           adjustment mechanism for a number of oil and gas pipelines in 1995. Deemed  
7           capital structure ratios were established for individual pipelines that were intended  
8           to compensate for different levels of business risks, so that a single return on  
9           equity could be applied to all of the pipelines.

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11           The second approach is to establish a capital structure that is compatible with the  
12           business risks of the utility, and is adequate for the utility to maintain an  
13           investment grade debt rating, but may not result in the same level of equity risk as  
14           faced by the low risk benchmark utility. Consequently, an incremental equity risk  
15           premium relative to the benchmark utility is required, in order to provide full  
16           compensation for both business and financial risks to each utility. This is the  
17           approach that has effectively been adopted by the BCUC.

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19           For purposes of recommending a capital structure and return on equity for  
20           FortisBC in 2005, I relied upon the approach that has been adopted by the BCUC.  
21           More specifically,

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- 23           1.       I evaluated the reasonableness of the actual capital structure that has been  
24                    maintained by FortisBC; and,
- 25           2.       I accepted the BCUC’s return on equity for a benchmark low risk utility as  
26                    a point of departure for estimating the equity risk premium for FortisBC at  
27                    the proposed capital structure.  
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30           The determination of a reasonable capital structure should be premised on the  
31           following principles:

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1. The Stand-Alone Principle: The stand-alone principle encompasses the notion that the cost of capital incurred by the ratepayers should be equivalent to that which would be faced by the utility raising capital in the public markets on the strength of its own business and financial parameters. The cost of capital should reflect neither subsidies given to, nor taken from, other activities of the utility or its parent. Application of the stand-alone principle to FortisBC means that FortisBC should be treated as if it were operating independently. Respect for the stand-alone principle is intended to promote efficient allocation of capital resources and avoid cross-subsidies.
2. Business Risks: The capital structure should be compatible with the business risks of the utility. The business risks to which investors in an electric utility are exposed are those that reflect the basic characteristics of the operating environment and regulatory framework of the utility that can lead to the failure to recover a compensatory return on, and/or the return of the capital investment itself.
3. Debt Rating: A reasonable capital structure, in conjunction with the returns allowed on the various sources of capital, should provide the basis for a stand-alone investment grade debt rating.

Q. Why is the stand-alone principle of particular importance to FortisBC?

A. Prior to 1987, the then-named West Kootenay Power was owned by Cominco, Ltd. From 1987 to mid-2004 FortisBC was a subsidiary of Aquila Inc. In May 2004 Fortis Inc. completed its purchase of Aquila (B.C.), renaming it FortisBC. There is no reason that FortisBC's capital structure or the fair return on equity should change simply because the identity of the shareholder has changed. The

1 capital structure and return on equity should continue to be premised on the risks  
2 faced by FortisBC.

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4 It bears noting that the stand alone principle, which has become the standard for  
5 regulation in Canada, is followed by Fortis Inc. in structuring its own operations.  
6 Each of the Fortis utilities is actually financed on a stand-alone basis, so that its  
7 credit will be assessed on its own business risks and ability to generate adequate  
8 cash flows.

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10 **B. BUSINESS RISK PROFILE**

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12 Q. Please explain your understanding of the term “business risks”.

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14 A. Business risks have both short-term and longer-term aspects. The capital  
15 structure and fair return on equity should reflect both short- and long-term risks.  
16 Long-term risks are important because utility assets are long-lived. Moreover,  
17 utility stocks are not typically purchased as short-term investments. Since utilities  
18 are generally regulated on the basis of annual revenue requirements, there is a  
19 tendency to downplay longer-term risks, essentially on the grounds that the  
20 regulatory framework provides the regulator an opportunity to compensate the  
21 shareholder for the longer-term risks when they are experienced. This premise  
22 may not hold. First, customer resistance may forestall higher return rewards when  
23 the risk materializes. Second, no regulatory Commission can bind a successor  
24 Commission and thus guarantee that investors will be compensated for longer-  
25 term risks in the event they are incurred in the future.

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27 Q. What are the key business risks faced by an electric utility?

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29 A. Business risk encompasses those market demand, supply and regulatory factors  
30 that expose the shareholders to the risk of underrecovery of the required return on,  
31 and the return of, their capital investment.

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Market demand risk relates to those factors that can lead to annual volatility in electricity sales or loss of customers. It includes market size, economic diversity and strength of the service area, growth potential, concentration of sales, competition with alternative energy sources and weather.

Supply and physical risks faced by an electric utility incorporate the risk of underearning due to the inability to generate or deliver electricity, or the inability to recover costs associated with the generation or delivery of electricity. The physical risks of a utility are a function of its geography, mix of generation and ability to access alternative sources of supply.

The regulatory framework in which a utility operates is, next to the basic demand risks, the most significant aspect of risk to which shareholders in a regulated firm are exposed. The financial community is very conscious of the regulatory environment, as highlighted in reports of both bond rating agencies and investment analysts.

Regulation has the power to expose utilities to enormous risks, by permitting bypass of facilities, disallowing costs, approving rate designs that are tilted against recovery of fixed costs, or returns that do not conform with informed investors' perception of risk. Alternatively, regulation can provide an environment characterized by even-handedness, conducive to continued growth consistent with economic allocation of resources, and affording the utility an opportunity to achieve a fair return with a reasonably high probability. Enlightened regulation will mitigate risks that are not susceptible to managerial control, and award a return that provides both (1) fair compensation for the risks that are left with management and (2) incentives to achieve (and exceed) the allowed return through continued improvement in productivity.

Q. Please provide a brief summary of FortisBC and its service area.

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A. FortisBC is a relatively small (2004 rate base of approximately \$500 million) integrated electric utility that serves the Okanagan and West Kootenay regions in south central British Columbia. FortisBC has approximately 93,000 direct customers and six municipal customers (48,000 indirect customers).

Q. What is FortisBC’s load mix?

A. In 2003, the Company’s normalized load, by customer class, was as follows:

	<u>(% of GW.h)</u>
Residential	36.0%
Municipal/BC Hydro	31.3
General Service/Commercial	18.6
Industrial	11.9
Lighting/Irrigation	2.2

The wholesale customers primarily serve residential and general service (commercial) customers. FortisBC’s service area is generally rural, without a large population center. The largest population centers in FortisBC’s service area are its wholesale customers, Kelowna (regional population of 158,500) and Penticton (regional population of 80,000). Major industries in FortisBC’s service territory include forestry/pulp and paper, agriculture and tourism. Population growth in the area has been strong over the past decade. In large part, the population growth stems from in-migration of retirees. One resulting demographic effect of that trend is an aging population, and smaller households.

Q. What is the relevance of economic growth to the business risk of an electric utility?

1 A. The level of economic growth is a key determinant of a utility's ability to generate  
2 sufficient revenues to meet its operating and maintenance expenses, service its  
3 debt with an adequate margin to maintain an investment grade debt rating, and  
4 achieve a compensatory return for its equity shareholders. Low economic growth  
5 can make it difficult for a utility to absorb through rates increases in capital costs  
6 required for system reliability, put downward pressure on debt coverages and  
7 ratings and result in shortfalls from the allowed return.

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9 Q. Please summarize the trends in, and the outlook for, the B.C. economy in the  
10 aggregate compared to the rest of Canada.

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12 A. Economic growth in British Columbia lagged the country as a whole throughout  
13 the period 1997-2002, negatively impacted by the weak Japanese economy, a key  
14 provincial trading partner, and the downsizing of the provincial government. In  
15 2003, while economic growth in British Columbia outpaced national growth  
16 (2.2% vs. Canada's 2.0%), it remained below the level achieved in 2002 (2.4% vs.  
17 Canada's 3.4%), negatively impacted by the rapid appreciation of the Canadian  
18 dollar, SARS, floods and fires. The major contributors to B.C.'s positive growth  
19 were high consumer demand for services and a strong provincial housing market.

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21 Growth in B.C. is expected to continue to outpace that of the country as a whole  
22 in both 2004 and 2005, as the province is expected to experience continued  
23 improvements in its labour markets, strong growth in housing starts and improved  
24 levels of inter-provincial in-migration. In addition, with fiscal restraint, including  
25 public sector staffing cutbacks, the provincial deficit has been eliminated.

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27 Q. What is the expected growth in B.C. in the near-term?

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- A. A sample of short-term forecasts for B.C., as compared to Canada overall, is found in the following table.

	2004		2005	
	B.C.	Canada	B.C.	Canada
BMO Financial Group (7/04)	2.7%	2.8%	3.2%	3.5%
CIBC (9/04)	3.1%	2.9%	3.5%	3.1%
RBC Financial Group (Fall 2004)	3.6%	3.1%	4.0%	3.6%
Scotiabank (9/04)	3.2%	2.9%	3.5%	3.2%
TD Bank (7/04)	3.1%	2.8%	4.1%	3.5%
<b>Average</b>	<b>3.1%</b>	<b>2.9%</b>	<b>3.7%</b>	<b>3.4%</b>

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- Q. How important are the resource-based industries to the B.C. economy?

- A. While the B.C. economy has become more diversified in recent years, it remains dependent on its natural resource industries, forest products, natural gas and mining. The forest products industry is of particular importance in FortisBC's service area.

The forest products industry, which has been called the "cornerstone of the British Columbia economy", is export dependent,<sup>1</sup> particularly on exports to the U.S. As such, it benefits in periods of high lumber prices, a strong global economy and a relatively weak Canadian dollar. The sharp appreciation in the Canadian dollar in 2003 (up approximately 20%), combined with U.S. duties of approximately 27%, resulted in a drop of over 20% in the value of B.C. lumber products exported to the U.S. last year.

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<sup>1</sup> Over 40% of all B.C. international exports are forest-based.

1 Recent NAFTA rulings in favour of the Canadian forestry industry may result in  
2 lower U.S. lumber duties and help offset recent declines in lumber prices (due to  
3 an expected slowdown in the North American new housing markets) and the  
4 strong Canadian dollar. However, faced with the prospect of refunding over \$2  
5 billion in past duties paid, the U.S. has filed an “extraordinary challenge” to the  
6 latest NAFTA ruling. Duties will continue to be paid until all legal options are  
7 exhausted.

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9 Q. What is the outlook for B.C.’s exports to its Pacific Rim trading partners?

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11 A. Increased demand for British Columbia’s exports, not just those of the forest  
12 products industry, is anticipated from the economies of the Pacific Rim.

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14 RBC Financial Group stated that,

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16 A booming Chinese economy has contributed to a substantial rise in metal  
17 prices in the past two years, which has allowed the province to dust off  
18 previously dormant mines and boost exports of metallic mineral products.  
19 Although China accounts for a mere 3.8% of B.C. export receipts, the  
20 province is likely to continue to leverage benefits from that country’s still  
21 relatively strong growth prospects next year. A recovering Japan will also  
22 mean increasing demand for metallic mineral products as well, but an  
23 anticipated marginal improvement in Japanese home construction could  
24 also mean a revival in lumber exports to that country too.” (“Provincial  
25 Outlook”, Autumn 2004)

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27 Development of these markets, however, may be hampered by the strength in the  
28 Canadian dollar.

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30 Q. How does the expected growth in B.C. in the long-term compare to the rest of  
31 Canada?

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33 A. In the longer term, the B.C. economy is expected to grow at a somewhat lower  
34 rate than the country as a whole. The Conference Board of Canada expects

1 Canada's economy to see compounded annual growth of 2.6% between 2005 and  
2 2025. Over the same period, it expects the economy of British Columbia will  
3 grow at an average rate of 2.3%.<sup>2</sup>  
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5 Q. What are the key elements of the provincial economy that create business risk for  
6 FortisBC?  
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8 A. The growth in the provincial economy remains dependent on the strength of  
9 commodity prices and the strength of the U.S. economy. A soft U.S./global  
10 economy and/or slumping commodity prices would lead to deterioration of the  
11 B.C. economy and hamper the future growth prospects of FortisBC.  
12

13 Q. What is the make-up of FortisBC's industrial load?  
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15 A. The industrial load is focused in the cyclical forestry-related industries. Five of  
16 the six largest industrial customers operate in the forestry/pulp and paper  
17 industries. As indicated above, these industries are sensitive to world commodity  
18 prices, to the strength of the U.S. and Pacific Rim (particularly Japanese)  
19 economies, and to the strength of the Canadian dollar. Factors such as strikes and  
20 trade disputes can also negatively impact the industry generally, or specific plants  
21 or mills. A downturn or permanent decline in the industry will have secondary  
22 effects in the economy, e.g., on commercial enterprises that cater to the industry,  
23 as well as on the disposable income of direct and indirect employees.  
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25 Q. Does FortisBC face any competition for its load?  
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27 A. FortisBC – in contrast to many electric utilities in Canada (e.g., the Alberta  
28 utilities) – has significant heating load. Approximately one third of direct  
29 residential sales are for heating purposes; it is likely that the indirect wholesale  
30 market would include a similar proportion. FortisBC competes with natural gas

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<sup>2</sup> Conference Board of Canada, *Provincial Outlook Long-Term Economic Forecast: 2004*, March 2004.

1 for heating load. Due to competitive delivered rates, natural gas has achieved a  
2 very high penetration rate in the new construction market. The heating load  
3 subjects the Company's earnings not only to competitive forces, but to weather-  
4 related volatility as well. In contrast to the major distribution gas utilities in B.C.,  
5 FortisBC has no weather-normalization or rate-stabilization mechanism to  
6 dampen weather-volatility.

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8 FortisBC also competes to some extent with alternative suppliers of electric  
9 power. Customer choice was given to wholesale and large industrial customers in  
10 B.C. in 1998. B.C. Hydro, whose industrial rates are competitive with  
11 FortisBC's, is the principal alternative for the eligible customers.

12  
13 In the longer-term, technological change is expected to increasingly create  
14 competitive alternatives. In some areas, small economic generation plants are  
15 already providing an alternative to expansion of the transmission grid, allowing  
16 customers to effectively bypass all or part of the transmission/distribution system.  
17 In addition, fuel cells are increasingly being viewed as a viable alternative to the  
18 traditional grid.

19  
20 Q. In November 2002, the Provincial Government released its new energy policy, in  
21 a document entitled, *Energy for Our Future: A Plan for B.C.* Are there elements  
22 of that policy that are likely to have a major impact on FortisBC's market risks?  
23

24 A. Not in the near term. The new policy reflects the conclusion that there was no  
25 need for large-scale electricity reforms in B.C., primarily due to the existence of  
26 substantial low cost hydro generation. As noted above, wholesale transmission  
27 access (for wholesale customers) and retail access for industrial customers has  
28 been in place since 1998. The new energy policy does not anticipate extending  
29 retail access to small electricity customers. However, under the new policy, small  
30 natural gas customers are able to purchase gas from suppliers other than the local

1 gas distribution company (as of November 1, 2004), which may create some  
2 additional competitive pressures between electricity and gas in certain markets.

3

4 Q. Please discuss FortisBC's supply circumstances.

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6 A. FortisBC generates approximately 45% of its supply needs from its own hydro  
7 generating plants. The remainder of its supply comes from purchased power.  
8 FortisBC has long-term contracts with Brilliant Power Funding and B.C. Hydro,  
9 of which both have take-or-pay provisions.

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11 FortisBC also purchases a portion of its requirements in the open market. As  
12 FortisBC's load has grown, the proportion of its load subject to market pricing  
13 and potential volatility has increased. While only approximately 2-5% of annual  
14 energy requirements currently are subject to market pricing, they have accounted  
15 for as much as 10-15% of total power purchases in periods of high market price  
16 volatility.

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18 From 1996-2004, FortisBC has had in place a purchase power incentive  
19 mechanism that shared with customers deviations from the forecast market price  
20 of power purchases. This mechanism mitigated FortisBC's exposure to market  
21 price volatility. That mechanism will continue to operate in 2005.

22

23 Q. Please discuss the regulatory framework under which FortisBC operates.

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25 A. In contrast to many Canadian utilities, FortisBC has operated with few deferral  
26 accounts. While it has shared deviations from forecast purchased power costs  
27 with customers, it has not operated with a pass-through mechanism for such costs.  
28 As noted previously, it has no weather normalization or rate stabilization  
29 mechanisms, as do a number of Canadian utilities (e.g., Terasen Gas, Gaz Metro,  
30 Newfoundland Power). In contrast to the other B.C. utilities and the Québec  
31 utilities, FortisBC has no deferral account for short-term interest expense.

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2 FortisBC was subject to performance-based regulation from 1996-2004. The  
3 BCUC's focus on performance-based regulation (PBR) in the province has led  
4 DBRS to characterize the B.C. regulatory environment as among the more  
5 progressive in Canada.<sup>3</sup> Although FortisBC will not be subject to as much PBR  
6 in 2005 as it has in the past, the expectation is that PBR will continue to be the  
7 principal regulatory model for the province and for the Company.

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9 While there are benefits associated with PBR, e.g., sharing of cost savings, there  
10 are also attendant risks. PBR plans typically entail productivity factors that limit  
11 the allowed increase in costs to be passed through in rates. FortisBC's PBR  
12 included productivity factors on both operating and maintenance expenses and  
13 base capital expenditures. The productivity factors on operating and maintenance  
14 expenses were as high as 4%. Except for 2003 and 2004, the productivity factors  
15 applied to capital expenditures were between 1% and 2% for all but two of the  
16 eight years.

17

18 The consistent achievement of productivity gains becomes more difficult over  
19 time, particularly for small utilities like FortisBC with a relatively small franchise  
20 area and limited ability to achieve economies of scale and scope. The risks of  
21 being unable to achieve productivity gains are increased in the face of large  
22 capital expenditures without corresponding load increases. The periodic re-basing  
23 of rates generally confers all past savings to customers.

24

25 Q. How would you view the PBR plan that has applied to FortisBC in the past  
26 relative to the cost of service ratemaking that characterizes many Canadian  
27 utilities?

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29 A. The PBR plan under which FortisBC has operated to some extent decoupled rates  
30 from the utility's actual costs. This was accomplished by basing the revenue

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<sup>3</sup> DBRS, "Terasen Gas Inc., Credit Rating Report", June 21, 2004.

1 requirement on a specified rate of change in specific cost elements (base O&M,  
2 base capital expenditures). Variances from target O&M costs and base capital  
3 expenditures were shared 50/50 with customers. As noted earlier, there has also  
4 been a sharing mechanism for variances from purchased power costs. I would  
5 view this type of PBR plan, which retains a link to actual costs and includes  
6 sharing, as exposing the shareholder to a moderately higher level of business risk  
7 than traditional cost of service ratemaking.

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9 Q. Have there been any studies that have addressed the relative risks of PBR versus  
10 traditional cost of service ratemaking?

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12 A. Yes. An empirical study by Ian Alexander, Colin Mayer and Helen Weeds,  
13 *Regulatory Structure and Risk: An International Comparison*, prepared for  
14 PSD/PPI, World Bank, January 30<sup>th</sup>, 1996, compared the cost of capital across  
15 different regulatory regimes. That study, a cross-country study of differences in  
16 costs of capital resulting from different types of regulatory regimes, concluded  
17 that the difference in asset (business risk) betas between energy utilities operating  
18 under rate of return regulation (a “low powered” regulatory regime) and price cap  
19 or revenue cap regulation (“high powered” regulatory regimes) was close to 0.40.  
20 The PBR mechanism employed by the BC utilities generally, and FortisBC  
21 specifically, are not pure price or revenue cap models. Thus, from a risk  
22 perspective, FortisBC would fall within the boundaries established by the two  
23 types of regulatory models. A risk position in the middle of the two extremes  
24 suggests an asset beta differential for FortisBC relative to a cost of service utility  
25 of approximately 0.20. A 0.20 differential in beta at the BCUC’s equity market  
26 risk premium of 5%, translates into a difference in the cost of equity of 100 basis  
27 points.

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29 Q. Are there any other aspects of FortisBC’s regulatory environment that are relevant  
30 to its business risk profile?

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1 A. Yes. As a part of its 2000 negotiated settlement for extending an amended PBR  
2 mechanism through 2000 to 2002, FortisBC agreed to a rate stabilization  
3 mechanism that limits increases in rates to 5% or less. The mechanism requires  
4 the Company to reduce its annual depreciation expense as necessary to comply  
5 with the agreed-to limit on rate increases.

6

7 In the same agreement, FortisBC lowered the rate of depreciation on its  
8 transmission assets, increasing the amortization period from 35 to 50 years.

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10 These two factors have contributed to the Company's free cash flow deficits (i.e.,  
11 the inability to meet capital expenditures through internally generated cash flows),  
12 discussed further below.

13

14 Q. How would you characterize FortisBC's business risk relative to a benchmark  
15 Canadian utility?

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17 A. In my opinion, FortisBC faces above average business risk relative to its  
18 Canadian electric and gas peers and, in the context of the BCUC's return on  
19 equity determination, relative to the low risk benchmark utility.

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21 **C. FINANCIAL RISK**

22

23 Q. Please define financial risk.

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25 A. Financial risk refers to the additional risk that is incurred as a result of assuming  
26 debt. From an equity investor's perspective, debt results in the incurrence of  
27 additional fixed obligations that must be met (interest expense) before the equity  
28 investor is entitled to any of the operating income generated by the utility.

29

30 The assumption of debt effectively magnifies the business risk to which the assets  
31 of the utility are exposed: the higher the debt ratio, the more potential volatility in

1 the equity return. The financial risk of a utility can be captured in its capital  
 2 structure ratios, interest coverage ratios and debt ratings.

3

4 Q. What have FortisBC's recent actual capital structure ratios been?

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6 A. Since 1999, the actual debt and common equity ratios have been:

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	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>6/2004</u>
Debt	59.1%	62.4%	57.4%	59.3%	61.4%	59.7%
Common Equity	40.9%	37.6%	42.6%	40.7%	38.6%	40.3%

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9 Source: DBRS, *Credit Rating Report: FortisBC Networks Canada (British*  
 10 *Columbia) Ltd.*, August 6, 2003; Consolidated Financial  
 11 Statements 2003; Interim Financial Statements, June 2004.

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13 The average common equity ratio over the period 1999-2004 has been 40.1%;  
 14 FortisBC has consistently maintained an approximately 60%/40% debt/equity  
 15 capital structure for at least ten years. The company is proposing to use a deemed  
 16 common equity ratio of 40% for its 2005 test year, slightly lower than its actual  
 17 forecast ratio.

18

19 Q. How does FortisBC's proposed deemed common equity ratio of 40% compare to  
 20 the ratios allowed by Canadian regulators for other investor-owned electric  
 21 utilities?

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23 A. The following table presents a summary of the most recent allowed common  
 24 equity ratios for other Canadian electric utilities.

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Company	Type <sup>1/</sup>	Allowed Equity Ratio	Debt Rating	
			DBRS	S&P
AltaLink	T	33% <sup>2/</sup>	A(high)	A-
ATCO Transco <sup>3/</sup>	T	33%	A(high)	A
ATCO Disco <sup>3/</sup>	D	37%	A(high)	A
FortisAlberta	D	37%	A(low)	NR
Maritime Electric	T/D <sup>4/</sup>	40% <sup>5/</sup>	NR	BBB+
Newfoundland Power	T/D <sup>4/</sup>	45% <sup>6/</sup>	A	BBB+
Nova Scotia Power	I	35-40% <sup>7/</sup>	A(low)	BBB+

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<sup>1/</sup> T = Transmission; D = Distribution; I = Integrated.

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<sup>2/</sup> If fully taxable; actual allowed common equity ratio is 35% to compensate for a less than full tax allowance.

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<sup>3/</sup> Ratings for CU Inc.

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<sup>4/</sup> Less than 10% of load generated by company-owned generation.

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<sup>5/</sup> Legislated minimum.

9

<sup>6/</sup> Cap.

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<sup>7/</sup> Board allowed 35% for ratemaking purposes; indicated it would allow a 40% equity ratio, subject to the level of equity maintained by NSP's parent, Emera, Inc.

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Sources: Schedules 1 and 2

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16

In addition, the common equity ratios of the Ontario municipally-owned electric distribution utilities (MEUs) were set by the Ontario Energy Board (OEB) in the *Ontario Distribution Handbook* (March 2000). The common equity for a particular utility was determined by reference to the size of the utility's rate base. For those distribution utilities with a rate base greater than \$1.0 billion, the common equity ratio was set at 35%. For electric distribution utilities with a rate base of between \$250 million and \$1.0 billion (the range in which FortisBC would fall), the common equity ratio was set at 40%. In contrast to the MEUs, however, FortisBC is an integrated electric utility.

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1 Based on a comparison with other Canadian electric utilities, FortisBC’s forecast  
 2 common equity ratio is in line with the allowed common equity ratios of other  
 3 investor-owned electric utilities, most of which are either wires-only companies,  
 4 or own very limited generation capacity. All other things equal (e.g., service area,  
 5 regulation), it would be expected that a wires-only electric utility (transmission or  
 6 transmission/distribution) would require a lower common equity ratio than an  
 7 integrated utility such as FortisBC to achieve the same debt rating, as a wires-only  
 8 utility faces less business risk than one with generating capacity.

9

10 Q. How do the recent actual capital structure ratios of other Canadian investor-  
 11 owned electric utilities compare to FortisBC’s forecast capital structure?

12

13 A. The 2003 fiscal year-end debt and common equity ratios of the major investor-  
 14 owned electric utilities with rated debt were:

15

	<b>Debt</b>	<b>Common Equity</b>
AltaLink	60.8%	39.2%
CU Inc. (ATCO Electric)	54.1%	38.9%
FortisAlberta	57.6%	42.4%
Maritime Electric	54.2%	45.8%
Newfoundland Power	54.7%	43.9%
Nova Scotia Power	51.2%	39.5%
<b>Average</b>	<b>55.4%</b>	<b>41.6%</b>

16

17 Note: Total debt plus common equity differs from 100% by the  
 18 preferred stock component.

19

20 Source: Schedule 3.

21

22 FortisBC’s proposed 2005 common equity ratio is similar to, but slightly below,  
 23 the average of the other investor-owned electric utilities; its deemed debt ratio is  
 24 higher due to the absence of preferred stock (60% vs 55.4%). The other investor-

1 owned electric utilities have, on average, approximately 3% preferred stock in  
 2 their capital structures. The existence of preferred shares, while a form of  
 3 leverage from the common equity shareholders' perspective, enhances pre-tax  
 4 interest coverage ratios.

5

6 Q. Please discuss the trend in FortisBC's interest coverage ratios.

7

8 A. FortisBC's average pre-tax interest coverage ratio for the five year period ending  
 9 2003 was 2.1 times; the 2003 coverage of 2.1 times represents a material  
 10 improvement from the 2002 level of 1.8 (Schedule 4). However, the 1999-2003  
 11 average of 2.1 times represents a deterioration from the prior five-year period  
 12 (1994-1998), during which FortisBC's pre-tax interest coverage averaged 2.4  
 13 times.

14

15 The declining interest coverage ratios reflect, in part, the fact that the allowed  
 16 returns on equity have generally declined more rapidly than the embedded debt  
 17 costs. The following table compares FortisBC's allowed returns to the average  
 18 coupon on its long term debt since 1995.

19

<b>Year</b>	<b>Allowed ROE</b>	<b>Average Coupon on Long-Term Debt</b>	<b>Spread</b>
1995	12.25%	9.50%	2.75%
1996	11.25	9.26	1.99
1997	10.50	8.76	1.74
1998	10.25	8.85	1.40
1999	9.50	8.18	1.32
2000	10.00	7.96	2.04
2001	9.75	8.15	1.60
2002	9.53	8.32	1.21
2003	9.55	8.19	1.36

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21 Source: DBRS Reports for FortisBC.

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Q. How do FortisBC's interest coverage ratios compare to its Canadian peers'?

A. In comparison to the interest coverage ratios of the major Canadian electric utilities, FortisBC's 1999-2003 average 2.1 times pre-tax interest coverage ratio has been weaker. The average pre-tax interest coverage for the major Canadian electric utilities (excluding FortisBC) over the period was 2.4 times (Schedule 4).

Q. Please discuss FortisBC's debt ratings.

A. FortisBC's debt is rated BBB(high) with a "Stable" trend by the Dominion Bond Rating Service (DBRS). DBRS has rated FortisBC BBB(high) since 1996, when it downgraded the Company's secured debentures from A(low). In June 2004, subsequent to Fortis Inc.'s acquisition of the Company, DBRS confirmed the existing ratings. In November 2004, DBRS completed a full evaluation of the Company.

DBRS' confirmation of FortisBC's ratings in June 2004 was premised on:

1. No additional support to the current ratings on the secured debentures arising from the replacement guarantee (from Aquila Inc. to FortisWest Inc.);
2. Fortis' intentions to allow FortisBC to continue to operate on a stand-alone basis as a regulated vertically integrated utility;
3. Maintenance of the capital structure in line with the deemed structure of 60% debt and 40% equity;
4. All debt financing activity to be conducted at the operating company level;

1           5.     Fortis Inc.'s ability to provide equity injections to maintain capital  
2                 structure in light of capital expenditure program during next two to three  
3                 years.

4  
5           DBRS' comments in its most recent report with respect to FortisBC's financial  
6           profile included the following:

7  
8           1.     The financial profile has weakened in recent years due to a variety of  
9                 factors including consistent free cash flow deficits and low allowed ROEs.

10  
11          2.     The relatively large anticipated capital expenditures (\$110 million per year  
12                 over the next four years) will contribute to large free cash flow deficits.

13  
14          3.     The large capital expenditures in conjunction with the BCUC's direction  
15                 to limit annual rate increases (through the rate stabilization mechanism on  
16                 depreciation expense) may keep cash flow ratios weaker. However, if  
17                 FortisBC's rate stabilization mechanism is eliminated, as requested in the  
18                 current rate application, the projected large free cash flow deficits could be  
19                 reduced.

20  
21          4.     Financial performance is sensitive to interest rates due to the BCUC's  
22                 automatic adjustment mechanism for return on equity. A key challenge to  
23                 the financial profile remains a low interest rate environment, which would  
24                 continue to negatively impact the allowed ROE and coverage ratios.  
25                 Furthermore, the allowed ROEs are markedly below those of U.S.  
26                 companies with similar business risk profiles.

27  
28          5.     Despite the free cash flow deficits, the Company's financial profile is  
29                 expected to remain acceptable for the ratings.

30  
31

1 Q. How do FortisBC's DBRS debt ratings compare to the DBRS debt ratings of  
2 other Canadian electric utilities?

3

4 A. FortisBC has the lowest DBRS rating of the investor-owned electric utilities.  
5 None of the other electric utilities in Canada is rated in the BBB category by  
6 DBRS.

7

8 Q. Please discuss FortisBC's Moody's debt rating.

9

10 A. FortisBC's initial Moody's debt rating was issued in November 2004, prior to the  
11 Company's first public debt offering. In order to make a public debt offering, a  
12 company requires two debt ratings. All of FortisBC's prior long term debt  
13 offerings had been private placements. Moody's has rated FortisBC Baa3, which  
14 corresponds to a DBRS rating of BBB(low).

15

16 Moody's rating is premised on low business risk, a significant capital expenditure  
17 plan over the next four to five years, the need for rate increases to implement the  
18 plan, a low depreciation rate, a tight liquidity position, cash flow deficits, and the  
19 need for equity infusions from the parent during the period of high capital  
20 expenditures.

21

22 Q. How does FortisBC's Baa3 rating compare with other Canadian utilities'  
23 Moody's ratings?

24

25 A. FortisBC's Baa3 rating is the lowest of the eight ratings assigned by Moody's to  
26 Canadian utilities. The median Moody's rating for the seven regulated companies  
27 other than FortisBC is A2; the two ratings closest to that of FortisBC are Nova  
28 Scotia Power (Baa1) and TransAlta (Baa2).

29

30

1 Q. What is the implication of a Baa3 rating?

2

3 A. A Baa3 rating is the lowest investment grade rating. At a Baa3 rating, a utility  
4 has little “cushion” should there be any deterioration in the business risk profile or  
5 financial parameters. A one-notch downgrade from Baa3 would place FortisBC  
6 in the Ba rating category, which would severely limit its ability to raise debt  
7 capital. Even at a Baa3 rating, FortisBC’s access to the public debt markets,  
8 particularly for longer-term issues, will be limited. Any flight to quality in the  
9 debt market could close FortisBC out of the longer-term market.

10

11 Q. Are there any quantitative guidelines set by a Canadian debt rating agency that  
12 would provide some basis for evaluating the appropriate stand-alone capital  
13 structure for FortisBC?

14

15 A. Yes. Standard & Poor’s (S&P) sets quantitative guidelines for three key financial  
16 ratios, Funds From Operations to Total Debt, Funds From Operations Interest  
17 Coverage, and Total Debt to Total Capital. Those guidelines apply globally to the  
18 utilities that S&P rates. The utilities are assigned a business profile score from  
19 “1” to “10”, with “1” being the least risky. The business profile scores, in turn,  
20 determine the guideline range of financial ratios that apply for different debt  
21 rating categories.

22

23 Q. What business profile scores have been assigned to Canadian utilities rated by  
24 S&P?

25

26 A. The scores that have been assigned by S&P to Canadian utilities have been in the  
27 range of “2” to “4”, with an average of “3”. The table below shows each of the  
28 scores assigned by S&P.

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AltaLink L.P.	2.5
Enbridge Inc./Enbridge Gas Distribution	2
Hydro One Networks	3
Newfoundland Power	3
Nova Scotia Power	4
Terasen Gas/Terasen Inc.	3
Nova Gas Transmission/ TransCanada PipeLines	3
<b>Median</b>	<b>3</b>

Q. Where would FortisBC likely fall, in your view, on the S&P business profile scale?

A. A review of S&P’s business profile scores for Canadian and U.S. utilities indicates assignments of “1” or “2” to pure-play electric transmission utilities; the only pure-play Canadian transmission utility (AltaLink) was assigned a “2.5”. Pure-play electric and gas distribution utilities in the U.S. typically have business profile scores in the range of “1” to “3”.

“Pure-play” integrated electric utilities not subject to industry restructuring and facing relatively low business risk are likely to have been assigned a score of “4”. The only integrated electric utility in Canada to receive an S&P business profile score was Nova Scotia Power, with a score of “4”.<sup>4</sup> I would anticipate that FortisBC would also receive a business profile score of “4” if it were rated by S&P.

Q. FortisBC does not have an S&P rating. Why are the guidelines relevant?

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<sup>4</sup> The average score for all U.S. electric utilities rated by S&P is “4”.

1 A. The preponderance of Canadian utilities which issue debt are rated by S&P (as  
 2 well as DBRS). S&P's guidelines are therefore applicable to those utilities and  
 3 will play a role in the establishment of capital structures that will be adequate to  
 4 maintain investment grade debt ratings. FortisBC's financial parameters will be  
 5 compared against its peers', whose financial parameters will be judged against the  
 6 S&P guidelines.

7  
 8 Q. What are the S&P quantitative guidelines for an A and a BBB rating for business  
 9 profile scores of "3" and "4", along with FortisBC's recent achieved values?

10  
 11 A.

	Business Profile		FortisBC (2001-2003)
	"3"	"4"	
FFO to Total Debt (%)			
A	15.0-26.0	20.0-28.0	
BBB	10.0-15.0	12.0-20.0	11.0%
FFO Interest Coverage (x)			
A	2.5-3.5	3.5-4.2	
BBB	1.5-2.5	2.5-3.5	2.5
Total Debt to Total Capital (%)			
A	50.0-55.0	42.0-52.0	
BBB	55.0-65.0	52.0-62.0	58.5%

12  
 13 Source: Standard & Poor's, *Utilities and Perspectives*, June 2004; Company  
 14 Consolidated Financial Statements.

15  
 16 The comparison above indicates that FortisBC's actual ratios would be  
 17 compatible with a BBB rating if its business profile score were "3". However, at  
 18 a notional "4" business profile score, the Company's actual financial parameters  
 19 have been generally weak for the BBB debt rating category.

20  
 21 Q. Have the actual financial parameters of Canadian utilities generally met the S&P  
 22 guidelines?  
 23

1 A. No. The financial parameters of Canadian utilities have generally been weak  
2 relative to the guidelines, which has been of ongoing concern to S&P.

3  
4 In March 2003, Standard & Poor's, as part of its process of harmonization of  
5 global utility ratings, announced that it was reevaluating the role of regulation in  
6 Canada in its determination of utilities' debt ratings. S&P expressed its concern  
7 that, despite the degree of regulatory protection afforded Canadian utilities, the  
8 level of business risk faced by those utilities did not warrant either the high debt  
9 ratios imposed by regulation or the low rates of return that have been allowed.  
10 Specifically, S&P stated,

11  
12 "The justification frequently cited by Standard & Poor's was that the  
13 supportive nature of Canadian utility regulation would sustain a high level  
14 of credit quality, notwithstanding what might be considered to be  
15 aggressive financial profiles. Based on a wide-ranging reassessment of  
16 business and financial risk among Canadian utilities, Standard & Poor's is  
17 now questioning the appropriateness of placing exceptional analytical  
18 reliance on the positive influence of regulatory factors in its analysis of  
19 Canadian utilities."<sup>5</sup>  
20

21 S&P noted that Canadian utilities are among the most highly levered utilities in  
22 their global ratings universe; and that the leveraged financial profiles generally  
23 stem from regulatory directives. At the time of the March 2003 announcement,  
24 S&P put five Canadian utilities on CreditWatch with negative implications,  
25 pending a review of their regulatory environments. That action brought the  
26 number of Canadian utilities on CreditWatch with negative implications,  
27 according to S&P, to fifteen.

28  
29 In early May 2003, S&P confirmed TransCanada PipeLines' rating at A-, but with  
30 a negative outlook. S&P – which accorded TCPL a "3" business profile score –  
31 stated that, in order for TCPL to maintain its A- rating, it would have to decrease  
32 its consolidated financial leverage to between 55% and 60% within the next 12  
33 months. In the absence of meeting those expectations, S&P would lower TCPL's

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<sup>5</sup> S&P, "Canadian Regulation Reassessed as a Ratings Factor", March 6, 2003.

1 ratings into the BBB category. Effectively, S&P was indicating that if the NEB  
2 was not willing to increase the deemed equity ratio for TCPL's Mainline above  
3 33%, TCPL would have to cross-subsidize its utility operations with its non-  
4 regulated operations.

5

6 S&P confirmed TCPL's ratings again in October 2004; the negative outlook  
7 remains. S&P noted,

8

9 Although TransCanada's nonregulated businesses are conservatively  
10 financed and provide attractive returns, the company's below-average  
11 financial profile largely reflects the financial weaknesses associated with  
12 its wholly owned regulated Canadian pipelines....Unless TransCanada is  
13 successful in its efforts to increase the regulated returns on its Canadian  
14 pipelines, Standard & Poor's expects the pipelines deemed equity levels  
15 and allowed ROE will remain relatively unchanged in 2004 and 2005. As  
16 such, efforts to strengthen the balance sheet and improve its cash-flow  
17 protection measures will have to occur at the corporate level.”  
18

19 S&P reaffirmed that TCPL would have to decrease its consolidated leverage to  
20 55-60% to maintain its ratings.

21

22 Terasen Gas Inc. was downgraded in June 2003. In its report S&P stated,

23

24 “The existing regulatory framework essentially determines the financial  
25 policies of Terasen's regulated subsidiaries. Although the British  
26 Columbia Utility Commission regulation mitigates the company's  
27 exposure to volatile commodity prices and poor weather, the low deemed  
28 equity levels, 33% at Terasen Gas and 35% at Terasen Gas (Vancouver  
29 Island) Inc. and allowed low returns on equity (9.4% and 9.2%),  
30 respectively) constrain credit quality. Terasen's deemed equity levels and  
31 allowed ROE are considered low and are substantially lower than those of  
32 its U.S. and global peers. The combination of a lower amount of equity in  
33 the capital structure and low returns on equity results in an overall  
34 financial profile that is much weaker than the company's North American  
35 and international peers.” Standard & Poor's, “Summary: Terasen Inc.”,  
36 June 26, 2003.

37

1 In January 2004, CU Inc. was downgraded from A+ to A, with one of the key  
2 “weaknesses” cited being “Financial Profile constrained by relatively low equity  
3 base and weak allowed returns imputed by regulator” (Standard & Poor’s,  
4 “*Research: CU Inc.*”, April 29, 2004). Subsequent to Decision 2004-052, S&P  
5 called the Board’s decision “generally positive” for the credit quality of the  
6 utilities affected, not so much as a result of the level of the approved equity  
7 returns or equity ratios, but due to the improved transparency and predictability of  
8 the outcomes.

9

10 Q. What conclusions have you drawn from your analysis of FortisBC’s business and  
11 financial risks?

12

13 A. For a utility of FortisBC’s size, a common equity ratio in the range of 40-45% is  
14 reasonable, compatible with its business risks and adequate to maintain a stand-  
15 alone rating of BBB(high). FortisBC has been able to maintain a BBB(high)  
16 DBRS rating with a “Stable” trend over time with an actual capital structure  
17 containing approximately 60% debt and 40% common equity.

18

19 Given its small size (see discussion below), it is unlikely that it could achieve an  
20 A rating without a significantly thicker common equity ratio, stronger cash flow  
21 measures, and a higher overall cost of capital. However, given the forecast level  
22 of capital expenditures in the near- to medium-term, and the expected free cash  
23 flow deficit, a 40% common equity ratio should be viewed as the floor required to  
24 ensure adequate financing flexibility.

25

26 However, at a deemed common equity ratio of approximately 40%, FortisBC  
27 would be of higher total investment risk than a benchmark Canadian utility, which  
28 requires the addition of an incremental equity risk premium to the equity return  
29 applicable to the benchmark low risk utility.

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**III. IMPACT OF SIZE**

Q. Does size play a role in the evaluation of risk and the return requirement?

A. Yes. A small utility cannot diversify its risks to the same extent as larger utilities whose assets, geography and economic bases are less concentrated. The impact of small size is frequently exhibited in lower debt ratings for companies whose financial parameters are stronger than their larger peers.

Q. FortisBC has grown from less than \$350 million in assets in 1999 to \$500 million in 2003. Would it still be considered a small company?

A. Yes. To put its relative size into perspective, FortisBC, with \$500 million in assets, is less than 5% the size of BC Hydro (\$15 billion in assets).

The only “pure-play” investor-owned integrated electric utility in Canada, Nova Scotia Power, with assets of \$3.0 billion, is close to six times the size of FortisBC. Nova Scotia Power is rated A(low) by DBRS, compared to FortisBC’s rating of BBB(high), despite FortisBC’s historically stronger capital structure and pre-tax interest coverage ratios.

Q. Has size been raised as an issue by DBRS?

A. Yes. In its November 2004 rating report for FortisBC, DBRS called the Company’s small size a “challenge” and stated,

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

1 Q. Have there been any studies that have quantified the impact of size on the return  
2 requirement?

3

4 A. Yes. Ibbotson Associates Inc. documents historic returns and betas for companies  
5 of different sizes. The analyses they have performed indicate that small  
6 companies tend to exhibit higher betas than larger companies.

7

8 Based on the Ibbotson classification of stocks, FortisBC would likely be, if it  
9 were publicly-traded, a Low-Cap stock (market capitalization of equity between  
10 \$0.3 and \$1.2 billion). By comparison, the typical publicly-traded Canadian  
11 utility would be a Mid-Cap stock (market value of equity in the range of \$1.2-\$5.0  
12 billion). Ibbotson's analysis indicates the betas of Low-Cap stocks have been  
13 approximately 0.14 higher than those of Mid-Cap stocks.<sup>6</sup>

14

15 When applied to a market risk premium of 5.0% (as determined by the BCUC in  
16 its August 1999 decision, *Return for a Benchmark Utility*), the Ibbotson analysis  
17 supports an incremental equity risk premium of about 70 basis points (5.0% x .14)  
18 for a Low-Cap company, e.g., FortisBC. The Ibbotson analysis also showed that,  
19 over the longer term, the achieved returns of Low Cap stocks were 1.5 percentage  
20 points higher (on an arithmetic average basis) than those of Mid-Cap stocks.

21

#### 22 **IV. EQUITY RISK PREMIUM FOR FORTISBC**

23

24 Q. Since FortisBC is not a publicly traded company, how can you estimate the  
25 incremental required equity risk premium for the company?

26

27 A. I have relied on a number of indicators, including relative debt costs, and relative  
28 costs of equity for samples of electric utilities. The above referenced study on the  
29 impact of performance-based regulation and the Ibbotson analysis of the impact

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<sup>6</sup> Ibbotson Associates, Stocks, Bonds, Bills, and Inflation: Valuation Edition, 2004 Yearbook, pages 121-137.

1 of size on the equity return requirement also served to inform my judgement as to  
 2 the required incremental equity risk premium.

3

4 Q. What information do relative debt costs convey?

5

6 A. The differential between the cost of long-term debt to FortisBC and a low risk  
 7 benchmark utility can be interpreted as an absolute floor on the differential  
 8 between their respective costs of equity. For this purpose, I would characterize a  
 9 low risk benchmark utility as one which has been able to achieve a solid A rating  
 10 on its debt.

11

12 RBC Dominion Securities provides indicated spreads for notional new debt  
 13 issues of varying terms (3 to 30 years) for a number of utilities that regularly issue  
 14 debt in the public market (RBC Capital Markets, *Power & Pipelines Weekly*  
 15 *Review*). The RBC data indicate that, since the end of 2002, the indicated spread  
 16 between on a notional new 30-year debt issue for a Canadian utility (with both  
 17 DBRS and S&P ratings of A(low)/A- or higher) and the 30-year Canada averaged  
 18 approximately 115 basis points. For Canadian utilities with either split ratings  
 19 (i.e., one rating in the A category and one in the BBB category), or both DBRS  
 20 and S&P ratings in the BBB category, the spread averaged 170 basis points. The  
 21 average differential was thus 55 basis points (Schedule 5).

22

23 The median ratings as of the end of October 2004 of the “A category” group of  
 24 utilities and the split-rated/BBB group of utilities were:

25

<u>A Category</u>		<u>Split-rated/BBB Category</u>	
<u>DBRS</u>	<u>S&amp;P</u>	<u>DBRS</u>	<u>S&amp;P</u>
A	A-	A(low)	BBB

26

27 Source: Schedule 5.

28

1 Since the median debt ratings of the two groups do not reflect a full debt rating  
2 differential, the spread between issues for a mid-A rated and a mid-BBB rated,  
3 utility would have been somewhat higher than the 55 basis point spread calculated  
4 above. The 55 basis point spread thus represents the floor for purposes of  
5 establishing an incremental equity risk premium for FortisBC.

6

7 Q. What information pertaining specifically to debt issues of FortisBC is available?

8

9 A. In July 2002, FortisBC (then Aquila(B.C.)) raised \$50 million in seven-year debt  
10 at 170 basis points above the benchmark seven-year Canada. At the end of July  
11 2002, the indicated spread for a seven-year issue for the utilities covered by RBC  
12 rated A- or above by both DBRS and S&P was 95 basis points. The difference  
13 between FortisBC's 170 basis point spread and the 95 basis point spread for the A  
14 category utilities suggest an incremental equity risk premium of 75 basis points  
15 for FortisBC relative to a low risk benchmark.

16

17 Q. How have you estimated the incremental equity risk premium for FortisBC using  
18 relative costs of equity?

19

20 A. First, I identified all U.S. electric utilities that have S&P debt ratings in either the  
21 A or BBB rating categories. For this purpose, the A rated utilities were intended  
22 to serve as a proxy for the benchmark low risk utility and the BBB rated utilities  
23 as a proxy for FortisBC.

24

25 Q. Why did you not use Canadian utilities?

26

27 A. There are two few publicly traded utilities in Canada to make a valid analysis.

28

29 Q. How did you estimate the difference in equity return requirement between the A  
30 and BBB rated utilities?

31

1 A. For each utility, I calculated a beta covering the period April 2002-September  
2 2004.<sup>7</sup> I then adjusted the raw betas using the *Value Line* formula.<sup>8</sup> That formula  
3 is as follows:

$$0.67 \text{ ("raw" beta)} + 0.33 \text{ (market mean beta of 1.0)}$$

4  
5  
6  
7 I then separately averaged the betas for all of the utilities rated A- to A+ and those  
8 rated BBB- to BBB+. As detailed in Schedule 6, the average beta for the A rated  
9 electric utilities was 0.60; the corresponding average for the BBB rated utilities  
10 was 0.70; a difference of 0.10.

11  
12 Q. How do you use the difference in betas between the two utility groups to estimate  
13 the required incremental equity risk premium for FortisBC?

14  
15 A. The beta for the A rated utilities serves as a proxy for the beta of the low risk  
16 benchmark utility. The beta of the BBB utilities serves as a proxy for FortisBC.  
17 The difference between the two betas multiplied by the market risk premium  
18 provides an estimate of the incremental equity risk premium for FortisBC. For  
19 purposes of this testimony, I estimated the incremental risk premium for FortisBC  
20 within the context of the BCUC's 1999 decision entitled *Return on Common*  
21 *Equity for a Benchmark Utility*. In that decision, as noted earlier in this  
22 testimony, the Commission concluded that the market risk premium was 5.0%.  
23 The 0.10 differential in beta between the low risk benchmark utility (as proxied  
24 by the A rated electric utilities) and FortisBC (as proxied by the BBB rated  
25 utilities) translates into a 50 basis point incremental risk premium. That premium

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<sup>7</sup> Traditionally, betas are calculated over a 60-month period. I relied on the most recent 30 months only so as to exclude the anomalous market behaviour of the so-called "tech wreck", which commenced in March 2000, and continued to at least October 2000. Betas which include that period will not be representative of most industries, since they were being driven more by the tech-related industries than by the "market". During the market "bust" (and the preceding "boom") defensive stocks and "Old Economy" industries tended to "decouple" from the tech-led market.

<sup>8</sup> *Value Line*, Merrill Lynch, and Bloomberg, key providers of betas, all rely on similar adjustment formulas.

1 is calculated as the differential beta of 0.10 multiplied by the 5.0% market risk  
2 premium.

3

4 Q. What, based on the analysis above, including relative debt costs, relative betas  
5 and the Ibbotson analysis on the small size effect, do you conclude is the required  
6 incremental equity risk premium for FortisBC relative to a benchmark utility?

7

8 A. A reasonable incremental equity risk premium for FortisBC relative to the low  
9 risk benchmark utility, determined within the context of the BCUC's 1999  
10 decision, is no less than 50 basis points; a reasonable range is 50-100 basis points,  
11 with a mid-point of 75 basis points.

12

13 Q. Based on your recommended equity risk premium and the most recent forecast of  
14 long Canadas, what would be FortisBC's allowed ROE for 2005?

15

16 A. The most recent *Consensus Forecast* (November 2004) anticipates the 10-year  
17 Canada to be 4.9% 3-months hence and 5.2% 12-months hence, for an average of  
18 5.1%. The average daily September 2004 spread between 10-year Canadas and  
19 30-year Canadas was 48 basis points, which when added to the 10-year Canada  
20 forecast, indicates a long (30-year) Canada forecast of 5.6%. The indicated return  
21 for a low risk benchmark utility under the BCUC formula would be 9.03%. The  
22 allowed ROE for FortisBC would be 9.78%, based on a 75 basis point  
23 incremental risk premium. This return would be applied to FortisBC's deemed  
24 capital structure, containing 40% common equity.

25

26 Q. Does this complete your testimony?

27

28 A. Yes.