

**RAPPORT D'EXPERT SUR LE COÛT DE LA DETTE**

**EMILY J. EISENLOHR**



**TESTIMONY OF**  
**EMILY EISENLOHR**  
**ON A STAND-ALONE CREDIT RATING**  
**ON BEHALF OF HYDRO-QUÉBEC DISTRIBUTION**

**September 30, 2004**

Q. Please state your name and business address.

A. My name is Emily Eisenlohr. My business address is 168 Neck Road, Madison, Connecticut 06443.

Q. What is your occupation?

A. I am a credit analyst and independent consultant.

Q. What are your educational background and experience?

A. I hold a Master of Business Administration from the University of Chicago with majors in finance and international business and am a Chartered Financial Analyst. I was a Senior Credit Officer in the Power Group at Moody's Investors Service in New York City. For over five years I was responsible for the recommendation and management of credit ratings for a large portfolio of investor-owned utilities plus several government-owned utilities such as Hydro-Québec, Ontario Hydro, Hydro One, and the Tennessee Valley Authority. I also worked in two money center banks for 15 years, primarily in utility and multinational corporate banking, but also with experience in foreign exchange and money markets.

Q. What is the purpose of your testimony?

A. Hydro-Québec Distribution asked me to develop an opinion on what rating would be placed on Hydro-Québec Distribution if it were a stand-alone entity without the benefit of the guarantee of the Province of Québec.

The rating opinion expressed here is based upon the business and financial profile of Hydro-Québec Distribution as if it were an independent corporation. While many questions would need to be addressed if ever Hydro-Québec Distribution were to be actually spun off from Hydro-Québec, the conclusion is not intended to reflect on the merits or drawbacks of a legal separation. The opinion serves solely as a benchmark to assess the value of the guarantee provided by the Province of Québec to Hydro-Québec Distribution and is based upon the Hydro-Québec

Distribution's financial statements, provided by Hydro-Québec and attached as Exhibits I and II.

Q. What does the rating assess?

A. Credit ratings measure the relative risk of default by an issuer of debt securities on financial payment obligations. Investment-grade credit ratings (BBB-/Baa3 and above) convey a low probability of default. Ratings below investment grade (BB+/Ba1 and below) reflect a higher and possibly significant likelihood of default. At the lowest end of the scales, securities are actually in default.

A rating should be comparable across geographies and industries. Generally speaking, a Baa1-rated bond issued by a country in Asia should have a probability of default similar to a Baa1-rated bond issued by a corporation in Canada.

The rating opinion expressed here is an "issuer rating". Ratings can be assigned either to an entity, such as a corporation or a government, or to a specific class of securities. An issuer rating represents an entity's general ability to meet its financial obligations on a stand-alone basis, without support of any other party.

Q. How was the credit rating developed?

A. The rating was developed following the process used by the major rating agencies and other fixed income professionals. Credit analysis follows whatever steps are necessary to determine the level of stability of cash flow available to make payments on financial obligations. A "Aaa" or "AAA" rating means that Moody's or S&P expects ample cash flow always to be available to meet any financial obligations of that issuer for the foreseeable future.

At its simplest, the analytic process can be reduced to assessment of cash inflows and outflows. To assess these flows an analyst evaluates two types of risk. First, the business in which the company is engaged is examined – its sources of revenues, the nature of its operating costs, and the investment required to continue in the business. Second, the analyst examines how the business is financed. Typically, confidential five-year forecasts are evaluated to determine how the forecast relates to the company's historic performance, to view the volatility of its cash flows, and to study trends.

A credit analyst will give greatest weight to cash flow and cash-flow-based ratios that measure both the coverage of financial requirements and the degree of leverage. Cash, not earnings, meets interest and principal payments.

Rating agencies most efficiently get to a rating conclusion by first comparing companies with similar business risks (the peer group), then comparing financial profiles within that group.

Q. How would you describe Hydro-Québec Distribution's business risk?

A. Hydro-Québec Distribution is engaged in the distribution of electric power to approximately 3.6 million customers within the Province of Québec. The electricity distribution business is characterized by:

- ✓ *Significant investment in assets* – power lines, distribution substations, maintenance equipment, and technology;
- ✓ *largely regulated revenues* through rate-setting mechanisms and/or contract approvals by a regulatory body;
- ✓ *a large number of customers who are the “end users” of power* (do not resell it);
- ✓ *employment of people* to deal with customers, connect lines, read meters, and provide other services; and
- ✓ *the arrangement for power delivery* for (usually) small customers who do not want to deal with competitive generation markets.

HQ Distribution has over \$8 billion invested in its rate base.

All HQ Distribution revenues are governed by cost-based regulation. Its regulatory risk is relatively high for a number of reasons. Québec is unique in its hydroelectric resources and enjoys some of the lowest rates in North America. The Province therefore has little reason to pursue the level of deregulation that has evolved elsewhere. But a “little deregulation” is tough to pursue as has been seen in a number of jurisdictions around the globe. Changes are being made as the local market gains experience. However, expected change means potential volatility and uncertainty to the fixed income analyst. Fixed income analysts look for stability and predictability of cash flows.

A number of regulatory aspects make reasonable predictions difficult at this point in time, including the following.

- Methodologies and philosophies are not yet fully established. The Régie is still relatively new. Consistent application of methodologies leads to greater predictability, but requires the observation of repeated decisions from a regulatory body in order to draw conclusions about a regulatory environment. A May 1998 rate freeze provided simplicity, and a modest 3% rate increase in January 2004 and a subsequent 1.4% rate increase in April improved cash flow to offset rising costs. A credit analyst will rely upon the actual cash flows that result from regulatory decisions rather than the conceptual underpinnings, such as “deemed” items, when arriving at a credit opinion.

- The customer-intensive nature of the distribution business attracts keen focus on the setting of distribution tariffs. Political sensitivities to rate increases can influence outcomes.
- Rate of return is an important regulatory decision because of the level of invested capital in the utility business. A rate of return can be affected by varying assumptions – the choice of risk-free rate and the perception of risk, as examples. An opinion on how the Régie views rates of return for regulated electric utilities cannot yet be developed due to the infrequent number of rate cases.
- The length of time until the next rate decision can be a credit issue. For example, a long-tenored regulatory decision in a low interest rate environment that establishes a low rate of return may cause a decline in cash flow should borrowing costs rise.
- Regulatory lag is a risk resulting from the length of time it takes to process a rate case. HQ Distribution's only source of cash is its regulated revenues. Should an unexpected event give rise to the need for more cash, such as storm damage, both utility and regulatory body still have to go through the regulatory process to provide relief. The willingness and political ability of the government to assist in the future has not been determined outside of the provision of the Provincial guarantee.

HQ Distribution must provide high-quality service to a large customer base. Its customers consume the power instead of reselling it. Customers range in size from small households to large, energy-intensive industrial companies, with a generally balanced mix across these customer segments.

Quality of service plays a major role within the regulatory environment. Numerous customers, miles of lower-voltage lines that require maintenance and repairs, and the need for continuous, high-quality power make the employment and management of people an important consideration. The largest customers are very price- and quality-conscious.

HQ Distribution depends upon a single supplier, Hydro-Québec Production, for nearly all its energy supply. While this could be a major concern in other situations, the Provincial guarantee extends to HQ Production so counterparty risk is not a credit concern here. The vast hydro resources make HQ Production a reliable provider from an operational point of view.

HQ Distribution faces a growing exposure to commodity price fluctuations. Most distribution companies are required to source power for their customers, at least for the residential customers, if they choose not to purchase power from an unaffiliated supplier. If the cost of providing power is not fully passed through to the customer, the distribution company bears the financial burden. Power prices

can vary wildly at the margin, and the market cost of power from new capacity can be significantly higher than HQ's average legacy cost. While the cost of the first 165 Twh of power under the legacy contract is a pass-through to customers, demand will soon exceed that amount. HQ Distribution files its Electricity Supply Plan every three years to assure adequate supply. But no mechanism has yet been developed by the Régie to remove this commodity risk from the utility while still managing the procurement process for the customer. The presence of commodity risk has had a negative impact on distribution company credit ratings around the globe.

Q. Given this business profile, how would you rank HQ Distribution's business risk?

A. Standard & Poor's (S&P) assigns a number on a scale of 1 (lowest risk) to 10 (highest risk) to capture their view of business risk across all the power sectors. While not so simple in practice as it appears on paper, the business risk assessments make comparisons of financial profiles and among the power sectors easier. Published ratios are for a peer group representing combined transmission and distribution (T&D) companies, whereas HQ Distribution is purely distribution. The span of ratings across the T&D group is greater than in any other peer group including production. This is likely due to the presence of significant commodity risk (both price and volume) in the profiles of a number of T&D companies. While the bulk of the T&D ratings are within business risk categories "1" through "4", ratings can also be found in each of categories "5" through "8". Commodity risk, lingering stranded cost recovery issues, and/or regulatory uncertainty seems to differentiate risk level "4" from level "3", the most common assigned business risk for T&D's.

Moody's does not use a numerical scale, but considers the same factors in assessing business risk. It publishes T&D average ratios by rating category, presented below.

HQ Distribution has actually lost money in the past two years, so it is difficult to say that it operates in a supportive regulatory environment. The improvement in its finances may reflect an improvement in the regulatory climate. Most regulatory regimes have adequately addressed price risk faced by distribution utilities, so an analyst would expect that issue to be addressed in the near future by the Régie. I would characterize the current business risk level faced by HQ Distribution as a "4". S&P ratio ranges for both levels "3" and "4" are presented below.

Q. How would you describe HQ Distribution's financial risk?

A. Financially, distribution companies tend to be characterized by lower coverage ratios and higher leverage than in the production sector of the energy industry due to the stability of regulated revenues. Despite the moderating influence of regulation a distribution company still needs a certain amount of financial

flexibility. Unexpected costs can result from major storm damage or jolts to credit markets that cause interest rates to rise just at the time a big borrowing is planned. As an example, a distribution company with a 3.0 times “FFO (Funds From Operations) to Interest” coverage ratio has more financial flexibility to deal with uncertainty than one with a 2.0 times coverage ratio.

HQ Distribution’s ratios show that the company is generally able to meet obligations as they come due, but that it also has a rather limited ability to respond to unexpected events without the intervention of outside parties. HQ Distribution’s financial flexibility is at the low end of the investment grade range for distribution companies. Under the guarantee it has ample access to capital markets to cover shortfalls. But as a stand-alone company with this profile, its borrowing costs could increase dramatically in tight markets.

Some T&D company ratings in other jurisdictions are affected by the acquisition programs of their parents. Large acquisitions can quickly change the risk profile of a company. However, Hydro-Québec is focused primarily on serving the Province and has minimal event risk.

Q. Once the analyst has evaluated business and financial risks, how is the credit rating developed?

A. The rating is developed by comparing financial ratios and qualitative factors among a peer group of companies with similar business risk. The most accurate comparison of relative risk is among a peer group of companies engaged solely in the power distribution business like HQ Distribution. While both major rating agencies publish ratios for combined transmission and distribution utilities (rather than just distribution utilities), these are still very useful as both functions are regulated. The transmission sector’s revenues typically are more stable than the distribution sector’s.

Q. How do HQ Distribution’s financial ratios compare with others in its peer group?

A. Two sources are used to provide a comparison of HQ Distribution with its peers. First, S&P published ratio ranges for Transmission and Distribution companies in its June 7, 2004 report *New Business Profile Scores Assigned for U.S. Utility and Power Companies; Financial Guidelines Revised*. Second, Moody’s Investors Service published average ratios by rating category for the T&D business sector in its October 2003 *Power and Energy Company Sourcebook*. Because many rating categories have so few companies, category averages are skewed and adequate comparisons difficult to make, especially in the lower grades. Both S&P and Moody’s would note that individual ratings may be influenced by factors not captured in published ratios.

The following briefly describe the ratios used below.

- ✓ FFO/Interest. Funds from operations divided by interest. Funds From Operations represents cash produced from operations, before financing considerations. This is a cash-flow-based measure of a company's ability to cover its interest burden, expressed in the number of times (x).
- ✓ FFO/Total Debt. This cash-flow-based ratio compares funds from operations in a single year to the debt burden, expressed as a percentage (%). This leverage ratio is much more useful than the traditional balance sheet measure (Debt as a percent of Total Capitalization) as it reflects changes in financial health much more quickly. Moody's utilizes a similar ratio, Retained Cash Flow (after dividends are paid) to Total Debt. An assumption that dividends would remain at 50% of net income (as in recent years) was made for the analysis.
- ✓ Total Debt/Total Capital. The traditional ratio that expresses the total debt burden as a percentage (%) of the total capitalization.

Published ratios are usually unadjusted. The rating agencies adjust interest expense and debt levels to reflect the real burden of off-balance-sheet financings and capitalization of interest to make ratios comparable to companies that do not use these financing tools.

Rating agencies publish these statistics as they are useful indicators. But they always note that the ratings are based upon forecasted ratios rather than historical numbers and also that other factors might influence a rating.

Standard & Poor's Transmission and Distribution Utility Ratio Ranges

	<u>FFO/ Interest</u>	<u>FFO/ Total Debt</u>	<u>Total Debt/ Total Capital</u>
Business Risk Level 3:			
AA	3.5-4.5x	25%-30%	42%-50%
A	2.5-3.5x	15%-25%	50%-55%
BBB	1.5-2.5x	10%-15%	55%-65%
BB	1.0-1.5x	5%-10%	65%-70%
Business Risk Level 4:			
AA	4.2-5.0x	28%-35%	38%-45%
A	3.5-4.2x	20%-28%	45%-52%
BBB	2.5-3.5x	12%-20%	52%-62%
BB	1.5-2.5x	8%-12%	62%-68%

Moody's Average Ratios for Transmission and Distribution Companies  
by Rating Category

(The number in parentheses indicates the number of companies in the rating category. Financial year 2002.)

	<u>FFO/ Interest</u>	<u>RCF/ Total Debt</u>	<u>Total Debt/ Total Capital</u>
A1 (7)	4.33x	12.0%	52.1%
A2 (10)	5.54x	15.7%	48.0%
A3 (5)	4.12x	13.0%	52.4%
Baa1 (4)	4.50x	17.4%	56.1%
Baa2 (3)	1.00x	-3.5%	65.9%
Baa3 (1)	5.68x	-0.1%	58.9%

HQ Distribution Ratios

	<u>FFO/ Interest</u>	<u>FFO/ Total Debt</u>	<u>Total Debt/ Total Capital</u>	<u>RCF/ Total Debt</u>
2002	0.07x	0.7%	65% (deemed)	
2003	0.81x	6.4%	65% (deemed)	
2004 (expected)	1.82x	13.2%	65% (deemed)	10.8%
2005 (with requested revenues)	1.61x	13.5%	65% (deemed)	11.0%

Q. What is your conclusion, based upon the methodology described above?

A. HQ Distribution would be rated at the low end of investment grade as a stand-alone entity. Ratings involve very complex analyses, and many questions remain to be answered were HQ Distribution to be truly an independent company. A number of assumptions are being made as part of this opinion. The first is that no support would be available as the value of the guarantee is what is being assessed as part of the regulatory proceedings. The second is to focus solely on the ratios

that would be achieved should the requested revenues be awarded. Stability of these ratios over the longer term was assumed.

Using S&P's ranges, HQ Distribution's ratios are a weak BBB for a business level "3". Should the commodity risk of having to provide some amount of power at market costs remain and the business risk level slip to a "4", the key FFO/Interest coverage ratio is not quite investment grade.

Compared to the Moody's averages, HQ Distribution's ratios are weaker than a Baa1.

HQ Distribution's sheer size and its importance to the Province's power sector mitigates the weak financial ratios to a degree. The final assumption is that the Régie will address the supply risk in a satisfactory manner at some point in the near future. Under that assumption, HQ Distribution stand-alone is likely to be a BBB/Baa2.

## **Exhibits**

Exhibit I: Hydro-Québec Distribution Financial Data

Exhibit II: Hydro-Québec Distribution Financial Ratio Calculations



**EXHIBIT I****Distributeur  
Résultats non consolidés (M\$)  
Exercice clos le 31 décembre**

	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>
<b>Produits</b>	8217	8671	<b>9081</b>	<b>9370</b>
<b>Charges d'exploitation</b>	1002	993	<b>1038</b>	<b>1061</b>
<b>Achats d'électricité et de transit</b>	6588	6819	<b>6832</b>	<b>7004</b>
<b>Amortissement et déclassement</b>	445	432	<b>455</b>	<b>468</b>
<b>Taxes</b>	99	104	<b>106</b>	<b>102</b>
<b>Frais financiers</b>	492	416	<b>392</b>	<b>461</b>
<b>Bénéfice net</b>	-409	-93	<b>258</b>	<b>274</b>
<b>Base tarifaire</b>	<b>8104</b>	<b>8207</b>	<b>8317</b>	<b>8473</b>
<b>Avoir propre présumé</b>	2836	2872	<b>2911</b>	<b>2966</b>
<b>Rendement sur avoir propre</b>	-0,14	-0,03	<b>0,088</b>	<b>0,0924</b>



**EXHIBIT II**
**Hydro-Québec Distribution Ratio Calculations**
**September 2004**
**Emily J. Eisenlohr, CFA**

<b>HQ Distribution Data and Calculations</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>
	<i>actual</i>	<i>actual</i>	<i>expected</i>	<i>forecast</i>
<i>Data:</i>				
Net Income	-409,0	-93,0	258,0	274,0
Dividend Assumption			129,0	137,0
Depreciation and Amortization	445,0	432,0	455,0	468,0
Taxes	99,0	104,0	106,0	102,0
Interest Expense	492,0	416,0	392,0	461,0
Capital Expenditures (CAPEX)	531,0	561,0	722,0	739,0
Total Debt	5 268	5 335	5 406	5 507
Equity (deemed 35%)	2 836	2 872	2 911	2 966
Total Capitalization	8 104	8 207	8 317	8 473
<i>Calculations:</i>				
Funds From Operations (FFO):				
Net income	-409,0	-93,0	258,0	274,0
plus depreciation and amortization	445,0	432,0	455,0	468,0
equals FFO	36,0	339,0	713,0	742,0
Retained Cash Flow (RCF):				
FFO			713,0	742,0
minus dividends			129,0	137,0
equals RCF			584,0	605,0
<i>Ratios:</i>				
FFO/INTEREST:	0,07	0,81	1,82	1,61
FFO/TOTAL DEBT:	0,7%	6,4%	13,2%	13,5%
RCF/TOTAL DEBT:			10,8%	11,0%
FFO/(INTEREST + CAPEX):	3,5%	34,7%	64,0%	61,8%
DEBT/CAPITALIZATION:	65,0%	65,0%	65,0%	65,0%