

**Exhibit No. MJV-1**

McShane's Recommended Cost of Equity and the Implied ATWACC

McShane's Recommended Return on Equity [1]	% of Equity [2]	Cost of Debt [3]	% of Non- % of Debt [4]	% of Non- Cost Capital [5]	Representative Tax Rate [6]	Implied ATWACC [7]	Implied BTWACC [8]
At the Forecast Capital Structure in 2002							
3.00%	15.27%	8.35%	83.18%	1.55%	40%	4.63%	7.40%
11.25%	15.27%	8.35%	83.18%	1.55%	40%	5.89%	8.66%
At 25% Equity Using 11.25% Return on Equity							
11.25%	25.00%	8.35%	73.45%	1.55%	40%	6.49%	8.95%
At 40% Equity Capital Using McShane's Cost of Debt							
9.75%	40.00%	8.35%	58.45%	1.55%	40%	6.83%	8.78%
At 40% Equity Capital Using Market Cost of Debt							
9.75%	40.00%	7.35%	58.45%	1.55%	40%	6.48%	8.20%

[1]: McShane's Evidence p. 52 and p. 54. 11.25% is the mid-point of McShane's recommendation.

[2]: McShane's Evidence Table 5, p. 21 and p. 54.

[3]: McShane's Evidence Table 5. At 40 percent equity the provincial fee of 1% is subtracted from the cost of debt.

[4] = 1 - [2] - [5].

[5]: McShane Evidence Table 5.

[6]: Representative Tax Rate.

[7] = [1]x[2] + [3]x[4]x(1-[6]).

[8] = [1]x[2] + [3]x[4].

**Workpaper #1 to Exhibit No. MJV-1**

Representative Tax Rate for Regulated Canadian Utilities

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	2000 Tax Rate	Tax Reduction 2000-01	Predicted Tax Reduction 2001-02
	[1]	[2]	[3]
B.C. Gas	44.21%		
Fortis	31.90%		
TransAlta	42.20%		
Median	42.20%	1%	2%

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Source:

[1]: Annual Reports, 2000.

[2], [3]: Budget Update from the Canadian Department of Finance, January 2001.

**Exhibit No. MJV-2**

Capital Structure and the Return on Equity

	ATWACC	% of Equity	Return on Equity	% of Debt	Cost of Debt	Representative Tax Rate	% of Non-Capital	Change in Equity Return
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
<b>Panel A: McShane's Recommendation</b>								
[a]	5.89%	15.27%	11.25%	83.18%	8.35%	40%	1.55%	
<b>Panel B: Return on Equity at Various Equity Levels</b>								
[b]	5.89%	15.00%	11.36%	83.45%	8.35%	40%	1.55%	n/a
[c]	5.89%	20.00%	9.77%	78.45%	8.35%	40%	1.55%	-1.59%
[d]	5.89%	25.00%	8.82%	73.45%	8.35%	40%	1.55%	-0.95%
[e]	5.89%	40.00%	8.27%	58.45%	7.35%	* 40%	1.55%	n/a

Notes:

\* The computation assumes that Hydro would obtain a BBB rating without the provincial debt guarantee if its equity level reaches 40%.

[1][a] = [2]x[3] + [4]x[5]x(1-[6]).

[1][b-e] = [1][a].

[2][a]: McShane Evidence Table 5.

[2][b-e]: Assumed.

[3][a]: McShane's Evidence p. 55.

[3][b-e] = ([1] - [4]x[5]x(1-[6]))/[2].

[4] = 1 - [2] - [7].

[5]: Workpaper 1 to Exhibit No. MJV-2 computes the market cost of debt. One percentage point is added due to the guarantee fee paid to the Province.

[6]: Representative tax rate for Canadian Regulated Utilities.

[7]: McShane Evidence Table 5.

[8][c] = [3][c] - [3][b].

[8][d] = [3][d] - [3][c].

**Workpaper 1 to Exhibit No. MJV-2**

Calculation of Canadian 20-Year Utility Bond Yield Spreads

	A - AA Spread [1]	BBB - A Spread [2]		Estimated Yield	Estimated Yield	Estimated Yield
Mar-00	0.3	0.05				
Feb-00	0.38	0.01				
Jan-00	0.38	0.01				
Dec-99	0.36	0.02				
Nov-99	0.4	0.02				
Oct-99	0.35	0.02				
Sep-99	0.35	0.04				
Aug-99	0.33	0.03				
Jul-99	0.32	0.08				
Jun-99	0.25	0.15				
May-99	0.18	0.17				
Apr-99	0.18	0.15				
Mar-99	0.21	0.09				
Feb-99	0.2	0.09				
Jan-99	0.19	0.07				
Dec-98	0.18	0.09				
Nov-98	0.2	0.1				
Oct-98	0.27	0.03				
Sep-98	0.17	0.12				
Aug-98	0.13	0.13				
Jul-98	0.14	0.13				
Jun-98	0.13	0.17				
May-98	0.14	0.19				
Apr-98	0.15	0.21				
			Oct-00 20-Year A- Rated Utility Bond Yield	AAA-Rated	AA-Rated	BBB-Rated
	Sample Mean Difference		[3]	[4]	[5]	[6]
[a]	0.25	0.09	7.15	6.74	6.90	7.24
[b]	Increase/Decrease since Oct. 00		0.11	0.11	0.11	0.11
[c]	Updated Yield		7.26	6.85	7.01	7.35

Notes:

[1], [2]: Calculated from CBRS historical 20-year bond yield data for "AA", "A", and "BBB" debt ratings.

[3]a: Taken from CBRS October, 2000 bond yield table.

[3]b: Taken from Bank of Canada's web page and CBRS October 2000 bond yield table.

[3]c = [3]a + [3]b.

[4] = [5] - .5x[1]a - .5x[2]a.

[5]: [3] - [1]a.

[6]: [3] + [2]a.

CBRS stopped publishing utility bond yields for AA and BBB rated bonds in March 2000. Therefore, current AA and BBB yields were constructed as the current yield on A-rated utility bonds plus/minus the average historical spread. AAA yields were computed as the AA yield minus the average spread between AA and A yields and between A and BBB yields.

Utility bond yields are not available post October 2000. The most recent yield on A-rated utility bonds was 7.15 and the average corporate bond yield has increased 11 basis points since then, so I add 11 basis points from the yield as of October 2000 (see WP 2 to Exhibit 2 for average corporate bond yields).

**Workpaper #2 to Exhibit No. MJV-2**

Yield on Corporate Bonds

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Month	Average Yield (Corp.) [1]
Oct-00	7.14
Jul-01	7.25
Increase (decrease)	0.11

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Notes:

[1]: Other bonds: Average weighted yield (Scotia Capital Inc.) - All corporates Long-term.

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**Exhibit No. MJV-3**

The Change in Hydro's Before-Tax Weighted-Average Cost of Capital as Equity Levels Change

ATWACC	Hydro's BTWACC	% of Equity	Return on Equity	% of Debt	Cost of Debt	Representative Tax Rate	% of Non- Cost Capital	Times Interest Earned
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
5.89%	8.66%	15.27%	11.25%	83.18%	8.35%	40%	1.55%	1.25
5.89%	8.59%	17.50%	10.45%	80.95%	8.35%	40%	1.55%	1.27
5.89%	8.51%	20.00%	9.77%	78.45%	8.35%	40%	1.55%	1.30
5.89%	8.34%	25.00%	8.82%	73.45%	8.35%	40%	1.55%	1.36
5.89%	7.60%	40.00%	8.27%	58.45%	7.35%	* 40%	1.55%	1.77

Notes:

\* The computation assumes that Hydro would obtain a BBB rating without the provincial debt guarantee if its equity level reaches 40%.

[1]: Exhibit No. MJV-2, Panel A.

[2] = [3]x[4] + [5]x[6].

[3]: Exhibit No. MJV-2, Panel B.

[4] = ([1] - [5]x[6]x(1-[7]))/[3].

[5] = 1 - [3] - [8].

[6]: Exhibit No. MJV-2.

[7]: Representative Tax Rate.

[8]: McShane Evidence Table 5.

[9] = ([3]x[4])/([5]x[6]) + 1.

**Exhibit No. MJV-4**

Return on Hydro's Rate Base as Equity Increases in the Capital Structure

ATWACC	Hydro's BTWACC	% of Equity	Return on Equity	% of Debt	Cost of Debt	Hydro's Rate Base (\$'000,000)	Hydro's Capital Charges (\$'000,000)	Change in Capital Charges (\$'000,000)
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
5.89%	8.66%	15.27%	11.25%	83.18%	8.35%	\$ 1,370.5	\$ 118.7	n/a
5.89%	8.59%	17.50%	10.45%	80.95%	8.35%	\$ 1,370.5	\$ 117.7	\$ (1.02)
5.89%	8.51%	20.00%	9.77%	78.45%	8.35%	\$ 1,370.5	\$ 116.6	\$ (1.14)
5.89%	8.34%	25.00%	8.82%	73.45%	8.35%	\$ 1,370.5	\$ 114.3	\$ (2.29)
5.89%	7.60%	40.00%	8.27%	58.45%	7.35% *	\$ 1,370.5	\$ 104.2	\$ (10.07)

Notes:

\* The computation assumes that Hydro would obtain a BBB rating without the provincial debt guarantee if its equity level reaches 40%.

[1] - [6]: Exhibit No. MJV-3 [1] - [6].

[7]: Data Request CA-71 schedule 1.1.

[8] = [2]x[7].

**Exhibit No. MJV-5**

Adjustment for Embedded Cost of Debt  
and for Hydro's Tax Exempt Status

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[1]	ATWACC		5.89%
[2]	Percentage Debt	83.18%	
[3]	Embedded Cost of Debt	8.35%	
[4]	Market Cost of Debt	8.35%	
[5]	Representative Tax Rate	40%	
[6]	Adjustment Factor		2.78%
[7]	Adjusted BTWACC		8.66%

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Notes:

- [1]: Exhibit No. MJV-2 [1].
- [2]: Exhibit No. MJV-2 [4].
- [3]: McShane Evidence Table 5.
- [4]: Exhibit No. MJV-2 [5].
- [5]: Exhibit No. MJV-2 [6].
- [6] = [2]\*([3] - [4])x(1-[5]).
- [7] = [1] + [6].

## Exhibit No. MJV-6

### Simplified Example for Computing the ATWACC

Market Price per Share	[1]	\$22.00
Number of Shares Outstanding (millions)	[2]	2.50
Market Value of Equity (\$'000,000)	[3]	\$55.00
Book Value of Debt (\$'000,000)	[4]	\$82.50
Market Value of the Company (\$'000,000)	[5]	\$137.50
Percentage Equity	[6]	40.00%
Percentage Debt	[7]	60.00%
Estimated Return on Equity	[8]	9.00%
Yield on Comparable Bonds	[9]	7.00%
Company Specific Tax Rate	[10]	42%
ATWACC	[11]	6.04%

#### Notes:

[1], [2]: Assumed. Would be obtained from Compustat or a similar source.

[3] = [1]x[2].

[4]: Assumed. Would be obtained from Compustat or a similar source.

[5] = [3] + [4].

[6] = [3]/[5].

[7] = [4]/[5].

[8]: Assumed. Would be estimated from market data using standard cost of capital estimation methods.

[9]: Assumed. Would be obtained from Standard & Poor's or a similar source. It is the yield on bonds of the same rating as those of the company in question.

[10]: Assumed. Would be obtained from the company.

[11] = [8]x[6] + [9]x[7]x(1-[10]).