

Undertaking: Newfoundland Power

U-19
NP 2016/2017 GRA

- 1 **Q. Reference: Transcript, April 6, 2016**
2 **Page 51, Lines 14-19**
3
4 **Undertake to file the equivalent in this proceeding of what you filed in B.C. in**
5 **JMC-5, in terms of each of the columns that you provided to the Board in B.C. for**
6 **this present proceeding.**
7
8 A. Please see Attachment A.

Exhibit JMC-5
(Revised for Illustrative CAPM)

Capital Asset Pricing Model - As filed in JMC-8

		[1]	[2]	[3]	[4]	[5] Average Market Risk Premium	[6]	[7]	[8]
US Proxy Group	Ticker	Bloomberg	Value Line	Average Beta	Risk Free Rate		Basic CAPM Calculation	Flotation Cost	Total CAPM
ALLETE, Inc.	ALE	0.75	0.80	0.78	4.29%	7.62%	10.20%	0.50%	10.70%
Duke Energy	DUK	0.55	0.60	0.58	4.29%	7.62%	8.68%	0.50%	9.18%
Eversource Energy	ES	0.68	0.75	0.71	4.29%	7.62%	9.72%	0.50%	10.22%
Great Plains	GXP	0.76	0.85	0.80	4.29%	7.62%	10.41%	0.50%	10.91%
OG&E Corp	OGE	0.78	0.90	0.84	4.29%	7.62%	10.70%	0.50%	11.20%
Pinnacle West Capital	PNW	0.72	0.70	0.71	4.29%	7.62%	9.68%	0.50%	10.18%
Westar	WR	0.67	0.75	0.71	4.29%	7.62%	9.71%	0.50%	10.21%
MEAN		0.70	0.76	0.73			9.87%		10.37%

		[1]	[2]	[3]	[4]	[5] Average Market Risk Premium	[6]	[7]	[8]
Canada Proxy Group	Ticker	Bloomberg	Value Line	Average Beta	Risk Free Rate		Basic CAPM Calculation	Flotation Cost	Total CAPM
Canadian Utilities Limited	CU	0.62	N/A	0.62	3.68%	7.62%	8.37%	0.50%	8.87%
Emera Inc.	EMA	0.71	N/A	0.71	3.68%	7.62%	9.08%	0.50%	9.58%
Enbridge Inc.	ENB	0.79	N/A	0.79	3.68%	7.62%	9.71%	0.50%	10.21%
Valener Inc.	VNR	0.43	N/A	0.43	3.68%	7.62%	6.98%	0.50%	7.48%
MEAN		0.64		0.64			8.54%		9.04%

		[1]	[2]	[3]	[4]	[5] Average Market Risk Premium	[6]	[7]	[8]
North American Electric Proxy Group	Ticker	Bloomberg	Value Line	Average Beta	Risk Free Rate		Basic CAPM Calculation	Flotation Cost	Total CAPM
ALLETE, Inc.	ALE	0.75	0.80	0.78	4.29%	7.62%	10.20%	0.50%	10.70%
Canadian Utilities Limited	CU	0.62	N/A	0.62	3.68%	7.62%	8.37%	0.50%	8.87%
Duke Energy	DUK	0.55	0.60	0.58	4.29%	7.62%	8.68%	0.50%	9.18%
Emera Inc.	EMA	0.71	N/A	0.71	3.68%	7.62%	9.08%	0.50%	9.58%
Eversource Energy	ES	0.68	0.75	0.71	4.29%	7.62%	9.72%	0.50%	10.22%
Great Plains	GXP	0.76	0.85	0.80	4.29%	7.62%	10.41%	0.50%	10.91%
OG&E Corp	OGE	0.78	0.90	0.84	4.29%	7.62%	10.70%	0.50%	11.20%
Pinnacle West Capital	PNW	0.72	0.70	0.71	4.29%	7.62%	9.68%	0.50%	10.18%
Westar	WR	0.67	0.75	0.71	4.29%	7.62%	9.71%	0.50%	10.21%
MEAN		0.69	0.76	0.72			9.62%		10.12%

Notes:

[1] Source: Bloomberg Professional; average of five years of weekly market-adjusted betas

[2] Source: Value Line as of August 31, 2015

[3] Equals mean of [1] and [2]

[4] Source: Equals average long-term Consensus Forecast of 10-year government bond yields for the period 2016-2018 as of April 13, 2015. (Pg. 3, 28)
plus the 30-day average spread between 10- and 30-year bond ending August 31, 2015.

[5] Source: Average of the Duff and Phelps Canada historical risk premium (1919-2014),

Duff and Phelps US historical risk premium (1926-2014),

Bloomberg; TSX total return less [4] as of August 31, 2015

Bloomberg; S&P 500 total return less [4] as of August 31, 2015

[6] Equals [4] + ([5] x [6])

[7] Flotation Costs

[8] Equals [6] + [7]

Illustrative Capital Asset Pricing Model

		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
			Value	Average	Raw Beta	Industry	Beta	Average	Risk Free	Average	Basic CAPM	Flotation	Total
US Proxy Group	Ticker	Bloomberg	Line	Beta		Index Beta	Adjusted to Industry Average	Beta	Rate	Market Risk Premium	Calculation	Cost	CAPM
ALLETE, Inc.	ALE	0.75	0.80	0.78	0.64	0.47	0.58	0.68	4.29%	7.62%	9.46%	0.50%	9.96%
Duke Energy	DUK	0.55	0.60	0.58	0.32	0.47	0.37	0.47	4.29%	7.62%	7.90%	0.50%	8.40%
Eversource Energy	ES	0.68	0.75	0.71	0.48	0.47	0.48	0.60	4.29%	7.62%	8.83%	0.50%	9.33%
Great Plains	GXP	0.76	0.85	0.80	0.63	0.47	0.58	0.69	4.29%	7.62%	9.55%	0.50%	10.05%
OG&E Corp	OGE	0.78	0.90	0.84	0.60	0.47	0.55	0.70	4.29%	7.62%	9.60%	0.50%	10.10%
Pinnacle West Capital	PNW	0.72	0.70	0.71	0.58	0.47	0.54	0.63	4.29%	7.62%	9.06%	0.50%	9.56%
Westar	WR	0.67	0.75	0.71	0.50	0.47	0.49	0.60	4.29%	7.62%	8.87%	0.50%	9.37%
MEAN		0.70	0.76	0.73	0.54	0.47	0.51	0.62			9.04%		9.54%
		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
			Value	Average	Raw Beta	Industry	Beta	Average	Risk Free	Average	Basic CAPM	Flotation	Total
Canada Proxy Group	Ticker	Bloomberg	Line	Beta		Index Beta	Adjusted to Industry Average	Beta	Rate	Market Risk Premium	Calculation	Cost	CAPM
Canadian Utilities Limited	CU	0.62	N/A	0.62	0.46	0.54	0.49	0.55	3.68%	7.62%	7.88%	0.50%	8.38%
Emera Inc.	EMA	0.71	N/A	0.71	0.54	0.54	0.54	0.62	3.68%	7.62%	8.44%	0.50%	8.94%
Enbridge Inc.	ENB	0.79	N/A	0.79	0.67	0.54	0.63	0.71	3.68%	7.62%	9.08%	0.50%	9.58%
Valener Inc.	VNR	0.43	N/A	0.43	0.15	0.54	0.28	0.36	3.68%	7.62%	6.39%	0.50%	6.89%
MEAN		0.64		0.64	0.46	0.54	0.48	0.56			7.95%		8.45%
		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
			Value	Average	Raw Beta	Industry	Beta	Average	Risk Free	Average	Basic CAPM	Flotation	Total
North American Electric Proxy Group	Ticker	Bloomberg	Line	Beta		Index Beta	Adjusted to Industry Average	Beta	Rate	Market Risk Premium	Calculation	Cost	CAPM
ALLETE, Inc.	ALE	0.75	0.80	0.78	0.64	0.47	0.58	0.68	4.29%	7.62%	9.46%	0.50%	9.96%
Canadian Utilities Limited	CU	0.62	N/A	0.62	0.46	0.54	0.49	0.55	3.68%	7.62%	7.88%	0.50%	8.38%
Duke Energy	DUK	0.55	0.60	0.58	0.32	0.47	0.37	0.47	4.29%	7.62%	7.90%	0.50%	8.40%
Emera Inc.	EMA	0.71	N/A	0.71	0.54	0.54	0.54	0.62	3.68%	7.62%	8.44%	0.50%	8.94%
Eversource Energy	ES	0.68	0.75	0.71	0.48	0.47	0.48	0.60	4.29%	7.62%	8.83%	0.50%	9.33%
Great Plains	GXP	0.76	0.85	0.80	0.63	0.47	0.58	0.69	4.29%	7.62%	9.55%	0.50%	10.05%
OG&E Corp	OGE	0.78	0.90	0.84	0.60	0.47	0.55	0.70	4.29%	7.62%	9.60%	0.50%	10.10%
Pinnacle West Capital	PNW	0.72	0.70	0.71	0.58	0.47	0.54	0.63	4.29%	7.62%	9.06%	0.50%	9.56%
Westar	WR	0.67	0.75	0.71	0.50	0.47	0.49	0.60	4.29%	7.62%	8.87%	0.50%	9.37%
MEAN		0.69	0.76	0.72	0.53	0.49	0.51	0.62			8.84%		9.34%

Notes:

[1] Source: Bloomberg Professional; average of five years of weekly market-adjusted betas

[2] Source: Value Line as of August 31, 2015

[3] Equals mean of [1] and [2]

[4] Source: Bloomberg Professional; beta computed on five years of weekly returns as of August 31, 2015

[5] Source: Bloomberg Professional; beta computed on five years of weekly returns for U.S. S&P utilities index and S&P/TSX Utilities index for Canada, through August 31, 2015.

[6] Equals (2/3) x [4] + (1/3) x [5]

[7] Equals mean of [3] and [6]

[8] Source: Equals average long-term Consensus Forecast of 10-year government bond yields (for Canada or the U.S., whichever is applicable) for the period 2016-2018 as of April 13, 2015. (Pg. 3, 28) plus the 30-day average spread between 10- and 30-year bond ending August 31, 2015.

[9] Source: Average of the Duff and Phelps Canada historical risk premium (1919-2014),

Duff and Phelps US historical risk premium (1926-2014),

Bloomberg; TSX total return less [4] as of August 31, 2015

Bloomberg; S&P 500 total return less [4] as of August 31, 2015

[10] Equals [8] + ([7] x [9])

[11] Flotation Costs

[12] Equals [10] + [11]