

1 **Q. Reference Evidence of Dr. Sean Cleary dated September 25, 2018**

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3 **Further to PUB-CA-020 has Dr. Cleary considered the impact of a capital**
4 **structure for Newfoundland Power at 40% equity and an ROE of 7.5 % on its**
5 **credit metrics and credit rating?**

6
7 A. Dr. Cleary has included two tables below that provide both the DBRS and
8 Moody’s metric estimates for NP under various equity ratio and ROE scenarios for
9 2017-2020. The supporting data and calculations can be found in “Attachment A –
10 PUB-CA-021 Worksheet.xls”. The metrics are estimated based on the pro forma
11 financial statements provided by NP in Exhibit 3 using the “existing” case
12 numbers. The estimates obtained using a 40% equity ratio, are obtained assuming
13 that NP issues additional new long-term debt at 4% to alter the capital structure.
14 Dr. Cleary feels 4% is conservative, given that NP issued \$75 million in 40-year
15 bonds at a yield of 3.815% during 2017.

16 For ease of reference I first provide the ranges for the metrics used by Moody’s and
17 DBRS (for low business risk firms – which is what DBRS uses in assessing utilities
18 such as NP):

19 **CREDIT METRIC CRITERIA**

Moody's Metrics	A	Baa
(CFO pre-WC + Interest)/Interest	4.5 to 6.0	3 to 4.5
CFO pre-WC/Debt	19 to 27%	11 to 19%
(CFO pre-WC - Dividends)/Debt	15 to 23%	7 to 15%
Debt/Capitalization	40 to 50%	50 to 59%

DBRS Metrics (Low Bus. Risk)	AA	A	BBB
Cash flow to debt	above 17.5%	12.5 to 17.5%	10.0 to 12.5%
Debt to Capital	below 55%	55 to 65%	65-75%
EBIT to Interest	Above 2.8	1.8 to 2.8	1.5 to 1.8

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22 The table below reports the DBRS and Moody’s metrics for 2017-2010 using ROEs of 7.5%,
23 8.0% and 8.5% assuming the equity ratio remains at 45%.

TABLE 21A

	ROE 7.50%	ROE 8.00%	ROE 8.50%
WITH EQUITY RATIO = 45%			
DBRS Metrics – calculated	<u>2017</u>	<u>2017</u>	<u>2017</u>
Cash flow to debt	0.180	0.184	0.188
Debt to Capital	0.542	0.542	0.542
EBIT to Interest	2.497	2.595	2.694
Moody's Metrics - calculated	<u>2017</u>	<u>2017</u>	<u>2017</u>
(CFO pre-WC + Interest)/Interest	3.961	4.029	4.098
CFO pre-WC/Debt	0.180	0.184	0.188
(CFO pre-WC - Dividends) /Debt	0.114	0.118	0.122
Debt/Capitalization (where Cap includes Deferred taxes)	0.473	0.473	0.473
DBRS Metrics - calculated	<u>2018E</u>	<u>2018E</u>	<u>2018E</u>
Cash flow to debt	0.178	0.182	0.186
Debt to Capital	0.548	0.548	0.548
EBIT to Interest	2.472	2.569	2.665
Moody's Metrics - calculated	<u>2018E</u>	<u>2018E</u>	<u>2018E</u>
(CFO pre-WC + Interest)/Interest	3.970	4.038	4.105
CFO pre-WC/Debt	0.178	0.182	0.186
(CFO pre-WC - Dividends) /Debt	0.132	0.136	0.140
Debt/Capitalization (where Cap includes Deferred taxes)	0.480	0.480	0.480
DBRS Metrics - calculated	<u>2019E</u>	<u>2019E</u>	<u>2019E</u>
Cash flow to debt	0.171	0.175	0.179
Debt to Capital	0.545	0.545	0.545
EBIT to Interest	2.520	2.619	2.719
Moody's Metrics - calculated	<u>2019E</u>	<u>2019E</u>	<u>2019E</u>
(CFO pre-WC + Interest)/Interest	3.897	3.967	4.037
CFO pre-WC/Debt	0.171	0.175	0.179
(CFO pre-WC - Dividends) /Debt	0.150	0.154	0.158
Debt/Capitalization (where Cap includes Deferred taxes)	0.479	0.479	0.479

DBRS Metrics – calculated	<u>2020E</u>	<u>2020E</u>	<u>2020E</u>
Cash flow to debt	0.175	0.179	0.183
Debt to Capital	0.543	0.543	0.543
EBIT to Interest	2.519	2.619	2.719
Moody's Metrics – calculated	<u>2020E</u>	<u>2020E</u>	<u>2020E</u>
(CFO pre-WC + Interest)/Interest	3.941	4.011	4.080
CFO pre-WC/Debt	0.175	0.179	0.183
(CFO pre-WC - Dividends) /Debt	0.133	0.138	0.142
Debt/Capitalization (where Cap includes Deferred taxes)	0.480	0.480	0.480

At a 45% equity ratio, we can note the following from Table 21A:

- Two of the three DBRS metrics (CF/Debt and Debt/Capital) remain in the AA range under all scenarios, with the lone exception of the CF/Debt ratio which falls slightly below the 0.175 cut-off to 0.171 in 2019 with a 7.5% ROE.
- The third DBRS metric (EBIT/Interest) remains in the upper half of the A range (1.8 to 2.8) for all four years under all ROEs, ranging from 2.47 to 2.72.
- The first three Moody's metrics remain in the top half of the Baa range under all scenarios, while the 4th metric (Debt/Capitalization) falls in the A range.

Hence, NP's metrics would remain healthy and in the same ranges as they have been if we use ROEs of 7.5%, 8.0% and 8.5% respectively. So Dr. Cleary sees no evidence from Table 21A that NP's credit ratings would be affected if the allowed ROE was 7.5% or 8% rather than 8.5%, assuming a 45% equity ratio.

Table 21B below reports the DBRS and Moody's metrics for 2017-2010 using ROEs of 7.5%, 8.0% and 8.5% assuming an equity ratio of 40%.

TABLE 21B

WITH EQUITY RATIO = 40%	ROE 7.50%	ROE 8.00%	ROE 8.50%
DBRS Metrics – calculated	<u>2017</u>	<u>2017</u>	<u>2017</u>
Cash flow to debt	0.159	0.162	0.165
Debt to Capital	0.592	0.592	0.592
EBIT to Interest	2.259	2.341	2.424

Newfoundland Power 2019/2020 General Rate Application

	Moody's Metrics – calculated	<u>2017</u>	<u>2017</u>	<u>2017</u>
	(CFO pre-WC + Interest)/Interest	3.687	3.744	3.801
	CFO pre-WC/Debt	0.159	0.162	0.165
	(CFO pre-WC - Dividends) /Debt	0.098	0.101	0.105
	Debt/Capitalization (where Cap includes Deferred taxes)	0.516	0.516	0.516
1				
	DBRS Metrics - calculated	<u>2018E</u>	<u>2018E</u>	<u>2018E</u>
	Cash flow to debt	0.159	0.162	0.166
	Debt to Capital	0.592	0.592	0.592
	EBIT to Interest	2.259	2.342	2.424
2				
	Moody's Metrics - calculated	<u>2018E</u>	<u>2018E</u>	<u>2018E</u>
	(CFO pre-WC + Interest)/Interest	3.721	3.779	3.837
	CFO pre-WC/Debt	0.159	0.162	0.166
	(CFO pre-WC - Dividends) /Debt	0.117	0.120	0.124
	Debt/Capitalization (where Cap includes Deferred taxes)	0.519	0.519	0.519
3				
	DBRS Metrics - calculated	<u>2019E</u>	<u>2019E</u>	<u>2019E</u>
	Cash flow to debt	0.151	0.154	0.158
	Debt to Capital	0.592	0.592	0.592
	EBIT to Interest	2.285	2.369	2.453
4				
	Moody's Metrics - calculated	<u>2019E</u>	<u>2019E</u>	<u>2019E</u>
	(CFO pre-WC + Interest)/Interest	3.631	3.690	3.749
	CFO pre-WC/Debt	0.151	0.154	0.158
	(CFO pre-WC - Dividends) /Debt	0.132	0.135	0.139
	Debt/Capitalization (where Cap includes Deferred taxes)	0.521	0.521	0.521
5				
	DBRS Metrics - calculated	<u>2020E</u>	<u>2020E</u>	<u>2020E</u>
	Cash flow to debt	0.154	0.157	0.161
	Debt to Capital	0.592	0.592	0.592
	EBIT to Interest	2.278	2.362	2.446
6				
	Moody's Metrics - calculated	<u>2020E</u>	<u>2020E</u>	<u>2020E</u>
	(CFO pre-WC + Interest)/Interest	3.665	3.723	3.782
	CFO pre-WC/Debt	0.154	0.157	0.161
	(CFO pre-WC - Dividends) /Debt	0.116	0.120	0.123
	Debt/Capitalization (where Cap includes Deferred taxes)	0.523	0.523	0.523

1 At a 40% equity ratio, we can note the following from Table 21B:

- 2
- 3 1. The first two DBRS metrics (CF/Debt and Debt/Capital) fall in the top half of the
- 4 A range under all scenarios, while the third DBRS metric (EBIT/Interest) remains
- 5 around the middle of the A range. These ratios would also be average or above
- 6 average relative to the DBRS credit metrics provided in Table 10 for comparable
- 7 Canadian utilities.
- 8 2. The first three Moody's metrics remain in the middle to top half of the Baa range
- 9 under all scenarios, while the 4th metric (Debt/Capitalization) falls in the lower
- 10 portion of the Baa range, just outside the A range.
- 11

12 Hence, if NP's equity ratio was reduced to 40%, its metrics would decline but would remain

13 healthy and well within metric ranges consistent with their existing DBRS and Moody's

14 ratings, based on ROEs of 7.5%, 8.0% and 8.5% respectively. So Dr. Cleary sees no

15 evidence from Table 21B that NP's credit ratings would be affected if the allowed ROE

16 was 7.5% or 8% rather than 8.5%, assuming a 40% equity ratio.

Figures taken from NP Exhibit 3 page 1
Exhibit 3 NP Existing Figures

	2017	2018E	2019E	2020E
Newfoundland Power				
Revenue	665681	656803	649504	650715
Purchased Power	440249	432443	430627	430644
Contribution	225432	224360	218877	220071
Other revenue	6283	6380	5584	5375
Operating expenses	59915	61620	64682	66571
Employee future benefit costs	17039	14029	9080	7566
Deferred Cost recoveries and amortization	-1032	-1032	0	0
Depreciation	57487	59801	62314	64797
Finance charges*	34894	35768	35948	37034
	<u>168303</u>	<u>170186</u>	<u>172024</u>	<u>175968</u>
Earnings Before Income Taxes	63412	60554	52437	49478
Income taxes	19424	18137	15814	14985
Net Earnings	43988	42417	36623	34493
Preference share dividends	555	552	552	552
Net Earnings Applicable to Common Shares	43433	41865	36071	33941
Finance Charges breakdown according to Exhibit 3 page 7				
Interest on long-term debt	35013	35789	35374	37080
Other interest	659	715	1354	755
Amortization of bond issue expenses	234	232	224	219
AFUDC (Interest during construction - according to Table 14 on page 25 of Grant Thornton report)	-1025	-984	-1021	-1039
Total Finance charges	34881	35752	35931	37015
Note slight discrepancy from the numbers provided in page 1 of Exhibit 3 - I will use the numbers from page 7, since a breakdown is provided.				
	2017	2018E	2019E	2020E
EBITv1 (Approx = EBT+ Finance Charges)	98293	96306	88368	86493
EBITv2 (Approx = EBT+ Interest expenses only)	99084	97058	89165	87313
EBITv3 (Approx = EBT+ Interest expenses + Bond issue amortizations only)	99318	97290	89389	87532
Net Earnings (from page 4 of Exhibit 3) slight difference from page 1 of Exhibit 3 - not sure why...	41526	40132	34483	32272
CFO Pre-WC (from page 4 of Exhibit 3)	110112	110899	101919	103473
CFO Total (from page 4 of Exhibit 3)	109968	98155	106742	103186
Debt (average) - page 6 of Exhibit 3	586726	609381	623801	637582
Common Equity (average) - page 6 of Exhibit 3	486557	494517	512346	526936
Preferred shares (average) - page 6 of Exhibit 3	8924	8917	8917	8917
	1082207	1112815	1145064	1173435
Deferred Income Taxes from page 3 of Exhibit 3	157935	155920	156550	155922
Common Share Dividends from page 2 of Exhibit 3	38419	27246	12384	25594
Payout ratio (common shares) - calculate using NI avail to CS (from cell C20)	0.8846	0.6508	0.3433	0.7541

USING existing data with 45% Equity Ratio

	ROE 2017	ROE 2017	ROE 2017	ROE 2017	ROE 2018E	ROE 2018E	ROE 2018E	ROE 2018E	ROE 2019E	ROE 2019E	ROE 2019E	ROE 2020E	ROE 2020E	ROE 2020E	ROE 2020E	ROE 2020E	ROE 2020E
Common Equity (average) - page 6 of Exhibit 3	486557	486557	486557	486557	494517	494517	494517	494517	512346	512346	512346	526936	526936	526936	526936	526936	526936
Implied net income avail to CS holders	36492	38925	41357	42034	37089	39561	42034	42034	38426	40988	43549	39520	42155	44790	44790	44790	44790
Add back Pref share dividends from Exhibit 3	555	555	555	552	552	552	552	552	552	552	552	552	552	552	552	552	552
Implied net income	37047	39480	41912	42586	37641	40113	42586	42586	38978	41540	44101	40072	42707	45342	45342	45342	45342
Add back taxes to find EBT (Using Implied tax rate of as Taxes/EBT from page 1 of Exhibit 3 - i.e., 30.6% for 2017)	53406	56913	60420	60795	53736	57265	60795	60795	55809	59477	63145	57481	61280	65040	65040	65040	65040
Earnings before taxes	57487	59801	63114	62314	59801	62314	62314	62314	62314	62314	62314	64797	64797	64797	64797	64797	64797
Depreciation	35013	35013	35013	35789	35789	35789	35789	35789	35374	35374	35374	37080	37080	37080	37080	37080	37080
Interest on long-term debt	659	659	659	715	715	715	715	715	1354	1354	1354	755	755	755	755	755	755
Other Interest	89078	92585	96092	97299	90240	93769	97299	97299	92537	96205	99873	95316	99095	102875	102875	102875	102875
EBIT	146565	150072	153579	157100	150041	153570	157100	157100	154851	158519	162187	160113	163892	167672	167672	167672	167672
EBITDA	105633	108066	110498	113353	108408	110880	113353	113353	106414	108976	111537	111273	113908	116543	116543	116543	116543
CFO Pre-WC = net income (from above) + non-cash items estimates for 2017 from page 4 of Exhibit 3	586726	586726	586726	586726	609381	609381	609381	609381	623801	623801	623801	637582	637582	637582	637582	637582	637582
CFO PreWC	486557	486557	486557	486557	494517	494517	494517	494517	512346	512346	512346	526936	526936	526936	526936	526936	526936
Debt (average) - page 6 of Exhibit 3	8924	8924	8924	8924	8917	8917	8917	8917	8917	8917	8917	8917	8917	8917	8917	8917	8917
Common Equity (average) - page 6 of Exhibit 3	157935	157935	157935	157935	155920	155920	155920	155920	156550	156550	156550	155922	155922	155922	155922	155922	155922
Preferred shares (average) - page 6 of Exhibit 3	38419	38419	38419	38419	27246	27246	27246	27246	2384	2384	2384	25594	25594	25594	25594	25594	25594
Deferred Income Taxes from page 3 of Exhibit 3	555	555	555	555	552	552	552	552	552	552	552	552	552	552	552	552	552
Common Share Dividends from page 2 of Exhibit 3																	
Preference share dividends																	
USING 45% Equity Ratio RATIOS																	
Moody's Metrics - calculated																	
(CFO pre-WC + Interest)/Interest	3.9612	4.0294	4.0876	4.1052	3.8974	4.0375	4.1052	4.1052	3.8974	4.0368	4.0368	3.9410	4.0106	4.0803	4.0803	4.0803	4.0803
CFO pre-WC/Debt	0.1800	0.1842	0.1883	0.1883	0.1779	0.1820	0.1860	0.1860	0.1706	0.1747	0.1788	0.1745	0.1787	0.1828	0.1828	0.1828	0.1828
(CFO pre-WC - Dividends)/Debt	0.1136	0.1178	0.1219	0.1219	0.1323	0.1363	0.1404	0.1404	0.1499	0.1540	0.1581	0.1335	0.1376	0.1418	0.1418	0.1418	0.1418
Debt/Capitalization (Where Cap includes Deferred taxes)	0.4731	0.4731	0.4731	0.4731	0.4803	0.4803	0.4803	0.4803	0.4793	0.4793	0.4793	0.4796	0.4796	0.4796	0.4796	0.4796	0.4796
DBRS Metrics - calculated																	
Cash flow to debt	0.1800	0.1842	0.1883	0.1883	0.1779	0.1820	0.1860	0.1860	0.1706	0.1747	0.1788	0.1745	0.1787	0.1828	0.1828	0.1828	0.1828
Debt to Capital	0.5422	0.5422	0.5422	0.5422	0.5476	0.5476	0.5476	0.5476	0.5448	0.5448	0.5448	0.5433	0.5433	0.5433	0.5433	0.5433	0.5433
EBIT to Interest	2.4971	2.5954	2.6938	2.6938	2.4720	2.5687	2.6654	2.6654	2.5195	2.6194	2.7193	2.5193	2.6191	2.7190	2.7190	2.7190	2.7190

	USING 40% Equity Ratio (Assume issue new long-term debt at 4%)			USING 40% Equity Ratio (4% rate assumed)			USING 40% Equity Ratio (4% rate assumed)			USING 40% Equity Ratio (4% rate assumed)		
	ROE 2017	ROE 2017	ROE 2017	ROE 2018E	ROE 2018E	ROE 2018E	ROE 2019E	ROE 2019E	ROE 2019E	ROE 2020E	ROE 2020E	ROE 2020E
Common Equity (average) - page 6 of Exhibit 3	432883	432883	432883	445126	445126	445126	458026	458026	458026	469374	469374	469374
Implied net income avail to CS holders	32466	34631	36795	33384	35610	37836	34352	36642	38932	35203	37550	39897
Add back Pref share dividends from Exhibit 3	555	555	555	552	552	552	552	552	552	552	552	552
Implied net income	33021	35186	37350	0	33936	36162	34904	37194	39484	35755	38102	40449
Add back taxes to find EBT												
(Using tax rate of 30.6% for 2017 as Taxes/EBT from page 1 of Exhibit 3)	47603	50723	53843	48447	51625	54802	49976	52555	56534	51288	54655	58021
Earnings before taxes	57487	57487	57487	59801	59801	59801	62314	62314	62314	64797	64797	64797
Depreciation	37159.97	37159.968	37159.968	37764.64	37764.64	37764.64	37546.82	37546.816	37546.816	39382.48	39382.48	39382.48
Interest on long-term debt (existing plus interest on new LT debt)	659	659	659	715	715	715	1354	1354	1354	755	755	755
Other interest												
EBIT	85421.52	88541.683	91561.8481	86926.91	90104.19	93281.47	88876.43	92155.44547	95434.46253	91425.81	94792.24	98158.68
EBITDA	142908.5	146028.683	149148.8481	146777.9	149905.2	153082.5	151190.4	154469.4455	157748.4625	156222.8	159589.2	162955.7
CFO Pre-WC = net income (from above) + non-cash items estimates for 2017-2020 from page 4 of Exhibit 3	101607	103772	105936	104703	106929	109155	102340	104630	106920	106956	108303	111650
CFO Pre-WC	640400	640400	640400	658772	658772	658772	678121	678121	678121	695144	695144	695144
Debt - assuming w debt issued to get ER = 40%	432883	432883	432883	445126	445126	445126	458026	458026	458026	469374	469374	469374
Common Equity	8924	8924	8924	8917	8917	8917	8917	8917	8917	8917	8917	8917
Preferred shares (average) - page 6 of Exhibit 3	157935	157935	157935	15920	15920	15920	156550	156550	156550	155922	155922	155922
Deferred Income Taxes from page 3 of Exhibit 3	38419	38419	38419	27246	27246	27246	12384	12384	12384	25594	25594	25594
Common Share Dividends from page 2 of Exhibit 3	555	555	555	552	552	552	552	552	552	552	552	552
Preference share dividends	1082207	1082207	1082207	1112815	1112815	1112815	1145064	1145064	1145064	1173435	1173435	1173435
Total Cap from Exhibit 3	53674	53674	53674	49391	49391	49391	54320	54320	54320	57562	57562	57562
New debt issued (total)												
RATIOS												
Moody's Metrics - calculated (CFO pre-WC + Interest)/Interest	3.6867	3.7439	3.8011	3.7210	3.7788	3.8367	3.6308	3.6897	3.7485	3.6647	3.7232	3.7817
CFO pre-WC/Debt	0.1587	0.1620	0.1654	0.1589	0.1623	0.1657	0.1509	0.1543	0.1577	0.1539	0.1572	0.1606
(CFO pre-WC - Dividends)/Debt	0.0978	0.1012	0.1046	0.1167	0.1201	0.1235	0.1318	0.1352	0.1386	0.1162	0.1196	0.1230
Debt/Capitalization (where Cap includes Deferred taxes)	0.5164	0.5164	0.5164	0.5192	0.5192	0.5192	0.5210	0.5210	0.5210	0.5229	0.5229	0.5229
DBRS Metrics - calculated												
Cash flow to debt	0.1587	0.1620	0.1654	0.1589	0.1623	0.1657	0.1509	0.1543	0.1577	0.1539	0.1572	0.1606
Debt to Capital	0.5918	0.5918	0.5918	0.5920	0.5920	0.5920	0.5922	0.5922	0.5922	0.5924	0.5924	0.5924
EBIT to Interest	2.2587	2.3412	2.4237	2.2590	2.3416	2.4242	2.2847	2.3690	2.4533	2.2778	2.3617	2.4456