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

Page 34: Dr. Cleary has provided an estimate of the cost for rate payers using 2017 data associated with an ROE at 8.5% and 8.93% and the capital structure at 40% equity rather than 45%. What is the estimate of cost if the ROE were 7.5%?

A. Dr. Cleary follows the same procedure used on pages 34-36 of his direct evidence below:

Take the 2017 "Average Rate Base" figure of $1,092,254,000 from page 7 of Exhibit 3 of Newfoundland Power's GRA 2019/2020. We can then multiply this figure by 45% and 40% to obtain the resulting Common Equity (CE) dollar figures of $491,514,300 and $436,901,600 respectively. Using a 7.5% allowed ROE, these common equity figures translate into the following net income available to common shareholder figures (NIACS):

	Using ROE = 7.5%
For an ER =45%:	NIACS=$491,514,300×.075=$36,863,573
For an ER =40%:	NIACS=$436,901,600×.075=$32,767,620
	NIACS Difference: $4,095,953

We must offset these costs to consumers of maintaining a 45% ER against the additional financing costs associated with maintaining a 40% ER (which would also be borne by consumers). With a 40% ER, the CE figure is $54,612,700 lower. Assuming the ER is reduced to 40% from 45% by issuing long-term debt at 4%, we obtain the following additional after-tax cost to be passed through to NIACS due to the issue of $54,612,700 in new debt.

Additional Debt Costs (After-tax) = $54,612,700 × 0.04 × (1 – 0.2368) = $1,667,217
Since this after-tax cost would be passed on to consumers through rates, we subtract this amount from the benefits that consumers would receive if the NIACS was reduced (as above) due to reducing the ER from 45% to 40%. Thus, we can obtain the following "net benefit" in terms of NIACS to NP's CE owners of maintaining a 45% ER versus a 40% ER:

= ($4,095,953 – $1,667,217) = $2,428,736.

Dividing these figures by NP's 2017 NAICS margin of 6.09%, we get the following estimate of "Additional Revenue" required to generate this net benefit in terms of NIACS:

Additional Revenue associated with maintaining 45% ER (versus 40%):
= ($2,428,736/0.0609) = $39,880,714.

Of course, this additional revenue is collected from NP's customers. During 2017 NP generated 5,922.2 GWh of Energy Sales, so we can estimate the additional revenue impact per GWh as:

Additional Revenue per GWh = ($39,880,714/5,922.2) = $6,734.1 per GWh, or $0.0067341 per KWh. NP's 231,639 Domestic customers accounted for 3,644.8 GWh (or 61.54%) of NP's total GWh of energy sales in 2017. Therefore the average domestic customer uses 3,644,800,000/231,639 = 15,734.83 KWh per year. So we can estimate the average additional annual cost to the typical NP domestic customer of maintaining a 45% ER as follows:

> Additional Cost = 15,734.83 KWh × $0.0067341 = $105.96 annually, or $8.83 per month.

This represents approximately 7.2% of the average monthly bill for NP's residential customers, which is a real cost.