

1 Q. Reference: Interim Rate Application filed November 18, 2013, RFI VNLH-002
2 V-NLH-0002 shows that, based on Hydro's proposed phase-in, the forecast
3 drawdown during the phase in period will be \$11,349,783 for the industrial
4 customers (excluding Teck). Vale has taken the position that a proper interpretation
5 of Order in Council OC 2013-89, is that the phase in of rates is to occur over "a three
6 year period", and that the phase in should end on August 31,2016 as opposed to
7 August 31, 2015 as assumed by Hydro. Please assume that the Board accepts Vale's
8 interpretation of OC 2013-89 on the length of the phase in and provide the forecast
9 drawdown for each of Vale, CBPP, NARL and Praxair using a phase in period that
10 ends on August 31, 2016 as opposed to August 31, 2015.

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13 A. The total forecast drawdown for the Industrial Customers is \$16,851,150 based on
14 the stated premise that the phase-in period ends August 31, 2016 as opposed to
15 August 31, 2015. The supporting calculations for IC excluding Teck and Teck are
16 provided in IR-V-NLH-023 Attachments 1 to 4. The forecast drawdown for each of
17 Vale, CBPP, NARL and Praxair is shown in the response to IR-V-NLH-026.

Newfoundland and Labrador Hydro
Estimated Industrial Customer Phase-In Rates for the 2013 to 2016 effective September 1, 2013
Industrial Customers excluding Teck Resources

IR-V-NLH-023, Attachment 1
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Line No	A	B		C	D	E
		Existing Revenue including RSP at August 31 2013				
	2013 Test Year	Units	Rate	Revenue A x B	Rate	Revenue A x D
Step 1: Determine Annual Percentage Increase						
1 Demand		721,400 kW	6.68 \$/kW/mo	\$4,818,952	9.13 \$/kW/mo	\$6,586,382
2 Energy		336,600 MWh	36.76 mills/kWh	\$12,373,416	47.82 mills/kWh	\$16,096,212
3 Specifically Assigned Charges				\$498,143		\$1,580,426
4 Subtotal				<u>\$17,690,511</u>		<u>\$24,263,020</u>
5 RSP (Teck, Vale, and Praxair)		38,600 MWh	(20.00) mills/kWh	(\$772,000)	mills/kWh	\$0
6 RSP (Other Industrial Customers excluding Teck, Vale, and Praxair)		298,000 MWh	(7.85) mills/kWh	(\$2,339,300)	mills/kWh	\$0
7 Total		336,600 MWh		\$14,579,211		\$24,263,020
8 Difference between Total Proposed Test Year Revenue and Existing mills/kWh				43.31		(\$9,683,809) Line 7, Col C less Line 7, Col E
9 Annual Required Increase						72.08 Line 7/Line 2, Col A
						13.6% See Note 1
 Step 2: Calculate 3-Year (Interim) Phase-In Rate Components						
11 Demand (\$/kW/month)		6.68	6.68	7.59	8.62	9.13
12 Energy (mills/kWh)		36.76	36.76	41.76	47.44	47.82
13 RSP (mills/kWh)		(7.85)				
14 Specifically Assigned Charges		\$498,143	\$498,143	\$565,890	\$642,852	\$1,580,426
 Step 3: Revenue Proof						
15 Demand		\$4,818,952	\$4,818,952	\$5,475,426	\$6,218,468	\$6,586,382
16 Energy		\$12,373,416	\$12,373,416	\$14,056,416	\$15,968,304	\$16,096,212
17 Specifically Assigned Charges		\$498,143	\$498,143	\$565,890	\$642,852	\$1,580,426
18 Subtotal		\$17,690,511	\$17,690,511	\$20,097,732	\$22,829,624	\$24,263,020
19 RSP		(\$3,111,300)				
20 Total		\$14,579,211	\$17,690,511	\$20,097,732	\$22,829,624	\$24,263,020
21 % Change year over year			21.3%	13.6%	13.6%	6.3%

Note (1): $((43.31 \text{ mills per kWh}) / (72.08 \text{ mills per kWh}))^{(1/(2012-2016))} - 1$

Line 11 x Line 1, Col A
Line 12 x Line 2, Col A
Line 14
Line 15 to 17
Line 13 x Line 5, Col A
Line 18 to 19

Newfoundland and Labrador Hydro
Estimated Industrial Customer Phase-In Rates for the 2013 to 2016 effective September 1, 2013
Teck Resources

IR-V-NLH-023, Attachment 2
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Line No	A	B	C	D	E
	2013 Test Year	Existing Revenue including RSP at August 31 2013		Proposed Test Year Revenue	Calculation
	Units	Rate	Revenue	Rate	Revenue
Step 1: Determine Annual Increase					
1 Demand	114,000 kW	6.68 \$/kW/mo	\$761,520	9.13 \$/kW/mo	\$1,040,820
2 Energy	71,800 MWh	36.76 mills/kWh	\$2,639,368	47.82 mills/kWh	\$3,433,476
3 Specifically Assigned Charges			\$186,169		\$215,009
4 Subtotal			\$3,587,057		
5 RSP			(\$1,436,000)		
6 Total	71,800 MWh	(20.00) mills/kWh	\$2,151,057	mills/kWh	\$0
7 Difference between Total Proposed Test Year and Existing			29.96		
8 mills/kWh					(\$2,538,248) Line 6, Col E less Line 6, Col C
9 Annual Required Increase					65.31 Line 6, Col C and E/Line 2 Col A
					21.5% See Note 1
Step 2: Determine Annual Revenue Requirement					
10 Amounts required to achieve 21.5% increase year over year					Line 11 x (1 + Line 9, Col E)
11 Revised Total to be paid by Teck Resources					Line 6, Col C plus Line 10
Step 3: Determine Teck Resources rate effective September 1, 2013					
12 Revised RSP allocation required		\$ (973,308)			Line 5, Col C plus Line 10, Col F
13 Teck Resources RSP Surplus Adjustment rate effective September 1, 2013		(13.56) mills/kWh			Line 12/Line 5, Col A
Step 4: Calculate 3-Year (Interim) Phase-In Rate Components					
14 Demand (\$/kW/month)	6.68	6.68	8.12	9.87	9.13
15 Energy (mills/kWh)	36.76	36.76	28.20	34.27	47.82
16 Energy Rate Adjustment (mills/kWh)		(13.56)			
17 Net Energy Rate	36.76	23.20	28.20	34.27	47.82
18 RSP (mills/kWh)	(20.00)				
19 Specifically Assigned Charges	\$186,169	\$186,169	\$226,214	\$274,873	\$215,009
Step 5: Revenue Requirement Proof					
20 Demand	\$761,520	\$761,520	\$925,680	\$1,125,180	\$1,040,820
21 Energy	\$2,639,368	\$2,639,368	\$2,024,760	\$2,460,586	\$3,433,476
22 Energy Adjustment			(\$973,308)		
23 Specifically Assigned Charges	\$186,169	\$186,169	\$226,214	\$274,873	\$215,009
24 Subtotal	\$3,587,057	\$2,613,749	\$3,176,654	\$3,860,639	\$4,689,305
25 RSP	(\$1,436,000)				
26 Total	\$2,151,057	\$2,613,749	\$3,176,654	\$3,860,639	\$4,689,305
27 % Change year over year		21.5%	21.5%	21.5%	21.5%

Note (1): $((29.96 \text{ mills per kWh}/65.31 \text{ mills per kWh})^{(1/(2012-2016))}-1$

Newfoundland and Labrador Hydro
Forecast drawdown of RSP credit for Industrial Customers excluding Teck for 2014 to 2016

IR-V-NLH-023, Attachment 3
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33 Sub-Total Industrial Customers excluding Teck

15,078,110

Newfoundland and Labrador Hydro
Forecast drawdown of RSP credit for Teck for 2013 to 2016

IR-V-NLH-023, Attachment 4
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Line No	A Billing Units		C Forecast Revenue using Proposed Phase-in Rates						I Forecast Revenue using Proposed 2013 Test Year Rates						O																
			Demand Charge			Energy Rate			G Specifically Assigned Charges			H Total Revenue			J Demand Charge			K Energy Rate			L Demand Energy			M Specifically Assigned Charges			N Total Revenue			RSP Drawdown	
	Demand kW	Energy MWh	\$/kW/mo.	millions/kWh	(A x C)	Demand (\$)	Energy (\$)	(B x D)	(\$)	(E + F + G)	(\$)	(\$)	(A x I)	Demand (\$)	Energy (\$)	(B x J)	(\$)	(K + L + M)	(\$)	(N - H)	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)				
2013																															
1	September	9,500	5,500	6.68	23.20	63,460	127,600		15,514	206,574	6.68	36.76	63,460	202,180		15,514	281,154	74,580													
2	October	9,500	6,000	6.68	23.20	63,460	139,200		15,514	218,174	6.68	36.76	63,460	220,560		15,514	299,534	81,360													
3	November	9,500	6,100	6.68	23.20	63,460	141,520		15,514	220,494	6.68	36.76	63,460	224,236		15,514	303,210	82,716													
4	December	9,500	6,400	6.68	23.20	63,460	148,480		15,514	227,454	6.68	36.76	63,460	235,264		15,514	314,238	86,784													
																											325,440				
2014																															
5	January	7,000	3,800	6.68	23.20	46,760	88,160		15,514	150,434	9.13	47.82	63,910	181,716		17,917	263,543	113,109													
6	February	7,000	3,500	6.68	23.20	46,760	81,200		15,514	143,474	9.13	47.82	63,910	167,370		17,917	249,197	105,723													
7	March	7,000	3,800	6.68	23.20	46,760	88,160		15,514	150,434	9.13	47.82	63,910	181,716		17,917	263,543	113,109													
8	April	7,000	3,700	6.68	23.20	46,760	85,840		15,514	148,114	9.13	47.82	63,910	176,934		17,917	258,761	110,647													
9	May	7,000	3,800	6.68	23.20	46,760	88,160		15,514	150,434	9.13	47.82	63,910	181,716		17,917	263,543	113,109													
10	June	7,000	3,700	6.68	23.20	46,760	85,840		15,514	148,114	9.13	47.82	63,910	176,934		17,917	258,761	110,647													
11	July	7,000	3,800	6.68	23.20	46,760	88,160		15,514	150,434	9.13	47.82	63,910	181,716		17,917	263,543	113,109													
12	August	7,000	3,800	6.68	23.20	46,760	88,160		15,514	150,434	9.13	47.82	63,910	181,716		17,917	263,543	113,109													
13	September	7,000	3,700	8.12	28.20	56,840	104,340		18,851	180,031	9.13	47.82	63,910	176,934		17,917	258,761	78,730													
14	October	7,000	3,800	8.12	28.20	56,840	107,160		18,851	182,851	9.13	47.82	63,910	181,716		17,917	263,543	80,692													
15	November	7,000	3,700	8.12	28.20	56,840	104,340		18,851	180,031	9.13	47.82	63,910	176,934		17,917	258,761	78,730													
16	December	7,000	3,800	8.12	28.20	56,840	107,160		18,851	182,851	9.13	47.82	63,910	181,716		17,917	263,543	80,692								1,211,410					
2015																															
17	January	7,000	3,800	8.12	28.20	56,840	107,160		18,851	182,851	9.13	47.82	63,910	181,716		17,917	263,543	80,692													
18	February	7,000	3,500	8.12	28.20	56,840	98,700		18,851	174,391	9.13	47.82	63,910	167,370		17,917	249,197	74,806													
19	March	7,000	3,800	8.12	28.20	56,840	107,160		18,851	182,851	9.13	47.82	63,910	181,716		17,917	263,543	80,692													
20	April	0	0	8.12	28.20	0	0		0	0	9.13	47.82	0	0		0	0	0								0					
21	May	0	0	8.12	28.20	0	0		0	0	9.13	47.82	0	0		0	0	0								0					
22	June	0	0	8.12	28.20	0	0		0	0	9.13	47.82	0	0		0	0	0								0					
23	July	0	0	8.12	28.20	0	0		0	0	9.13	47.82	0	0		0	0	0								0					
24	August	0	0	8.12	28.20	0	0		0	0	9.13	47.82	0	0		0	0	0								0					
25	September	0	0	9.86	34.26	0	0		0	0	9.13	47.82	0	0		0	0	0								0					
26	October	0	0	9.86	34.26	0	0		0	0	9.13	47.82	0	0		0	0	0								0					
27	November	0	0	9.86	34.26	0	0		0	0	9.13	47.82	0	0		0	0	0								0					
28	December	0	0	9.86	34.26	0	0		0	0	9.13	47.82	0	0		0	0	0								236,191					
2016																															
29	January	0	0	9.86	34.26	0	0		0	0	9.13	47.82	0	0		0	0	0								0					
30	February	0	0	9.86	34.26	0	0		0	0	9.13	47.82	0	0		0	0	0								0					
31	March	0	0	9.86	34.26	0	0		0	0	9.13	47.82	0	0		0	0	0								0					
32	April	0	0	9.86	34.26	0	0		0	0	9.13	47.82	0	0		0	0	0								0					
33	May	0	0	9.86	34.26	0	0		0	0	9.13	47.82	0	0		0	0	0								0					
34	June	0	0	9.86	34.26	0	0		0	0	9.13	47.82	0	0		0	0	0								0					
35	July	0	0	9.86	34.26	0	0		0	0	9.13	47.82	0	0		0	0	0								0					
36	August	0	0	9.86	34.26	0	0		0	0	9.13	47.82	0	0		0	0	0								0					
37	Sub-Total Teck																								1,773,040						
38	Total Industrial Customers																								16,851,150						