

1 Q. What are the components that make up composite costs related to the CPW's
2 related to each the options? Please provide a step-matrix back to the source
3 documents.

4

5

6 A. The attached document and accompanying Excel file show the annual cost
7 components which relate to the CPWs, reported in Exhibit 14. Costs have been
8 broken out as follows:

9 - Fixed charges by project. Fixed charges include depreciation expense,
10 return on rate base, and insurance cost. The inputs to calculate each of
11 these items are listed by project.

12 - Fuel expense by fuel type, with price per barrel and number of barrels;

13 - Operating and maintenance costs (O&M); and

14 - Power purchase costs, with Muskrat Falls purchases identified separately.

15

16 The total of fixed charges, fuel, O&M, and power purchase costs provided here
17 reflect the totals previously provided on Exhibit 14.

18

19 Data on the Excel file is grouped by cost category. Further details on each grouping
20 are available by expanding the data groupings. The attached printed version shows
21 all details for both scenarios:

22 (a) Isolated Island Scenario (48 pages)

23 (b) Labrador Infeed Scenario (24 pages)

24

25 Please refer to MHI-Nalcor-49.3 for additional information linking in-service capital
26 costs back to source documents.

NEWFOUNDLAND AND LABRADOR HYDRO GENERATION EXPANSION ANALYSIS
2010 ISLAND ISOLATED SCENARIO (\$000)

WACC	InSvcyr	InSvcMo	InSvcCost	SerLife	Ins Rate	CPW	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023		
8.00%						1,402,503	0	0	0	0	0	40,460	93,144	102,682	103,085	111,375	124,972	137,740	136,496	161,704		
TOTAL FIXED CHARGES																						
Return on Rate Base:																						
Beginning NBV							0	0	0	0	0	781,094	866,684	855,052	929,869	1,013,613	1,159,452	1,113,155	1,345,588	1,295,677		
Depreciation							0	0	0	0	0	14,410	31,448	36,119	37,229	39,517	46,297	49,129	49,911	58,514		
Ending NBV							0	0	0	0	0	766,684	835,236	818,933	892,640	974,097	1,113,155	1,064,026	1,295,677	1,237,162		
Average NBV							0	0	0	0	0	320,664	759,484	818,868	809,634	883,235	966,512	1,088,590	1,062,892	1,266,419		
Return on rate base %																						
Return on rate base \$000							0	0	0	0	0	25,653	60,759	65,509	64,771	70,659	77,321	87,087	85,031	101,314		
Insurance							0	0	0	0	0	397	937	1,054	1,086	1,200	1,354	1,524	1,553	1,876		
Total Fixed Charges - Detail Calculations							0	0	0	0	0	40,460	93,144	102,682	103,085	111,375	124,972	137,740	136,496	161,704		
Per Exhibit 14 - Isolated							0	0	0	0	0	40,460	93,144	102,682	103,085	111,375	124,972	137,740	136,496	161,704		
Difference between Exhibit 14 and detail calculations							0	0	0	0	0	(0)	(0)	(0)	(0)	0	(0)	(0)	(0)	0		
ISLAND POND	2015	11	199,118	60	0.100%		0	0	0	0	0	3,238	19,270	19,005	18,739	18,474	18,208	17,943	17,677	17,412		
Return on Rate Base:																						
Beginning NBV							0	0	0	0	0	199,118	198,565	195,246	191,928	188,609	185,290	181,972	178,653	175,334		
Depreciation							0	0	0	0	0	553	3,319	3,319	3,319	3,319	3,319	3,319	3,319	3,319	3,319	
Ending NBV							0	0	0	0	0	198,565	195,246	191,928	188,609	185,290	181,972	178,653	175,334	172,016		
Average NBV							0	0	0	0	0	33,140	196,906	193,587	190,268	186,950	183,631	180,312	176,994	173,675		
Return on rate base %							8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	
Return on rate base \$000							0	0	0	0	0	2,651	15,752	15,487	15,221	14,956	14,690	14,425	14,160	13,894		
Insurance							0	0	0	0	0	33	199	199	199	199	199	199	199	199	199	
Fixed Charges							0	0	0	0	0	3,238	19,270	19,005	18,739	18,474	18,208	17,943	17,677	17,412		
HRD ESP	2015	7	581,976	21	0.125%		0	0	0	0	0	37,222	72,782	70,565	68,348	66,130	63,913	61,696	59,479	57,262		
Return on Rate Base:																						
Beginning NBV							0	0	0	0	0	581,976	568,119	540,406	512,693	484,980	457,267	429,554	401,841	374,127		
Depreciation							0	0	0	0	0	13,857	27,713	27,713	27,713	27,713	27,713	27,713	27,713	27,713	27,713	
Ending NBV							0	0	0	0	0	568,119	540,406	512,693	484,980	457,267	429,554	401,841	374,127	346,414		
Average NBV							0	0	0	0	0	287,524	554,263	526,550	498,837	471,123	443,410	415,697	387,984	360,271		
Return on rate base %							8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	
Return on rate base \$000							0	0	0	0	0	23,002	44,341	42,124	39,907	37,690	35,473	33,256	31,039	28,822		
Insurance							0	0	0	0	0	364	727	727	727	727	727	727	727	727	727	
Fixed Charges							0	0	0	0	0	37,222	72,782	70,565	68,348	66,130	63,913	61,696	59,479	57,262		

NEWFOUNDLAND AND LABRADOR HYDRO GENERATION EXPANSION ANALYSIS
2010 ISLAND ISOLATED SCENARIO (\$000)

WACC	8.00%	InSvcyr	InSvcMo	InSvcCost	SerLife	Ins Rate	CPW	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
HRD UPG	2016	12	100,000	20	0.125%			0	0	0	0	0	0	1,092	12,892	12,492	12,092	11,692	11,292	10,892	10,492
Return on Rate Base:																					
Beginning NBV								0	0	0	0	0	0	100,000	99,583	94,583	89,583	84,583	79,583	74,583	69,583
Depreciation								0	0	0	0	0	0	417	5,000	5,000	5,000	5,000	5,000	5,000	5,000
Ending NBV							0	0	0	0	0	0	0	99,583	94,583	89,583	84,583	79,583	74,583	69,583	64,583
Average NBV								0	0	0	0	0	0	8,316	97,083	92,083	87,083	82,083	77,083	72,083	67,083
Return on rate base %								8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Return on rate base \$000								0	0	0	0	0	0	665	7,767	7,367	6,967	6,567	6,167	5,767	5,367
Insurance								0	0	0	0	0	0	10	125	125	125	125	125	125	125
Fixed Charges								0	0	0	0	0	0	1,092	12,892	12,492	12,092	11,692	11,292	10,892	10,492
HRD LOW Nox	2017	12	19,816	19	0.125%			0	0	0	0	0	0	0	221	2,604	2,521	2,437	2,354	2,271	2,187
Return on Rate Base:																					
Beginning NBV								0	0	0	0	0	0	0	19,816	19,729	18,686	17,643	16,600	15,557	14,514
Depreciation								0	0	0	0	0	0	0	87	1,043	1,043	1,043	1,043	1,043	1,043
Ending NBV							0	0	0	0	0	0	0	0	19,729	18,686	17,643	16,600	15,557	14,514	13,471
Average NBV								0	0	0	0	0	0	0	1,648	19,208	18,165	17,122	16,079	15,036	13,993
Return on rate base %								8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Return on rate base \$000								0	0	0	0	0	0	0	132	1,537	1,453	1,370	1,286	1,203	1,119
Insurance								0	0	0	0	0	0	0	2	25	25	25	25	25	25
Fixed Charges								0	0	0	0	0	0	0	221	2,604	2,521	2,437	2,354	2,271	2,187
PORTLAND	2018	12	110,936	60	0.100%			0	0	0	0	0	0	0	0	902	10,748	10,601	10,453	10,305	10,157
Return on Rate Base:																					
Beginning NBV								0	0	0	0	0	0	0	0	110,936	110,782	108,933	107,084	105,235	103,386
Depreciation								0	0	0	0	0	0	0	0	154	1,849	1,849	1,849	1,849	1,849
Ending NBV							0	0	0	0	0	0	0	0	0	110,782	108,933	107,084	105,235	103,386	101,537
Average NBV								0	0	0	0	0	0	0	0	9,238	109,857	108,009	106,160	104,311	102,462
Return on rate base %								8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Return on rate base \$000								0	0	0	0	0	0	0	0	739	8,789	8,641	8,493	8,345	8,197
Insurance								0	0	0	0	0	0	0	0	9	111	111	111	111	111
Fixed Charges								0	0	0	0	0	0	0	0	902	10,748	10,601	10,453	10,305	10,157

NEWFOUNDLAND AND LABRADOR HYDRO GENERATION EXPANSION ANALYSIS
2010 ISLAND ISOLATED SCENARIO (\$000)

WACC	InSvcyr	InSvcMo	InSvcCost	SerLife	Ins Rate	CPW	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	
HRD ISOL1	2019	12	120,973	17	0.125%		0	0	0	0	0	0	0	0	0	1,410	16,613	16,044	15,474	14,905	
Return on Rate Base:																					
	Beginning NBV						0	0	0	0	0	0	0	0	0	120,973	120,380	113,264	106,148	99,032	
	Depreciation						0	0	0	0	0	0	0	0	0	593	7,116	7,116	7,116	7,116	
	Ending NBV					0	0	0	0	0	0	0	0	0	0	120,380	113,264	106,148	99,032	91,916	
	Average NBV						0	0	0	0	0	0	0	0	0	10,056	116,822	109,706	102,590	95,474	
	Return on rate base %						8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	
	Return on rate base \$000						0	0	0	0	0	0	0	0	0	805	9,346	8,776	8,207	7,638	
	Insurance						0	0	0	0	0	0	0	0	0	13	151	151	151	151	
	Fixed Charges						0	0	0	0	0	0	0	0	0	1,410	16,613	16,044	15,474	14,905	
ROUND POND	2020	12	185,355	60	0.100%		0	0	0	0	0	0	0	0	0	0	1,508	17,959	17,712	17,465	
Return on Rate Base:																					
	Beginning NBV						0	0	0	0	0	0	0	0	0	0	185,355	185,098	182,008	178,919	
	Depreciation						0	0	0	0	0	0	0	0	0	0	257	3,089	3,089	3,089	
	Ending NBV					0	0	0	0	0	0	0	0	0	0	0	185,098	182,008	178,919	175,830	
	Average NBV						0	0	0	0	0	0	0	0	0	0	15,436	183,553	180,464	177,374	
	Return on rate base %						8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	
	Return on rate base \$000						0	0	0	0	0	0	0	0	0	0	1,235	14,684	14,437	14,190	
	Insurance						0	0	0	0	0	0	0	0	0	0	15	185	185	185	
	Fixed Charges						0	0	0	0	0	0	0	0	0	0	1,508	17,959	17,712	17,465	
CCCT 170	2022	12	281,562	30	0.125%		0	0	0	0	0	0	0	0	0	0	0	0	2,686	31,824	
Return on Rate Base:																					
	Beginning NBV						0	0	0	0	0	0	0	0	0	0	0	0	281,562	280,780	
	Depreciation						0	0	0	0	0	0	0	0	0	0	0	0	782	9,385	
	Ending NBV					0	0	0	0	0	0	0	0	0	0	0	0	0	280,780	271,394	
	Average NBV						0	0	0	0	0	0	0	0	0	0	0	0	23,431	276,087	
	Return on rate base %						8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	
	Return on rate base \$000						0	0	0	0	0	0	0	0	0	0	0	0	1,874	22,087	
	Insurance						0	0	0	0	0	0	0	0	0	0	0	0	29	352	
	Fixed Charges						0	0	0	0	0	0	0	0	0	0	0	0	2,686	31,824	

NEWFOUNDLAND AND LABRADOR HYDRO GENERATION EXPANSION ANALYSIS

2010 ISLAND ISOLATED SCENARIO (\$000)

WACC 8.00%

	InSvcyr	InSvcMo	InSvcCost	SerLife	Ins Rate	CPW	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
TOTAL FUEL EXPENSE						6,048,514	134,329	126,674	144,920	214,914	263,961	273,762	257,040	274,869	296,184	292,069	306,844	307,855	334,168	372,550
No. 2 Fuel Expense							1,368	1,078	1,292	2,745	4,462	5,150	4,320	4,933	5,759	5,629	6,315	6,562	7,957	8,943
\$/litre							0.674	0.700	0.760	0.815	0.850	0.905	0.945	0.990	1.030	1.065	1.100	1.155	1.195	1.235
\$/bbl			158.97				107.10	111.30	120.80	129.60	135.10	143.90	150.20	157.40	163.70	169.30	174.90	183.60	190.00	196.30
Barrels (000's)							12.8	9.7	10.7	21.2	33.0	35.8	28.8	31.3	35.2	33.2	36.1	35.7	41.9	45.6
No. 6 Fuel Expense							132,962	125,597	143,629	212,169	259,500	268,612	252,720	269,937	290,425	286,441	300,528	301,294	326,211	363,606
\$/bbl							81.30	83.20	90.90	98.80	102.60	103.82	107.00	111.50	115.60	118.60	120.30	123.10	125.80	128.50
Barrels (000's)							1635.503	1509.535	1580.116	2147.45	2529.296	2587.169	2361.904	2420.959	2512.347	2415.223	2498.12	2447.563	2593.033	2829.621
TOTAL POWER PURCHASE EXPENSE						743,283	52,937	53,260	54,036	54,757	57,467	64,417	64,807	65,300	65,794	66,233	66,624	67,044	67,483	58,831
Power purchase agreements - Other							52,937	53,260	54,036	54,757	57,467	64,417	64,807	65,300	65,794	66,233	66,624	67,044	67,483	58,831
Muskrat Falls power purchase cost							0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL OPERATING COSTS						615,694	21,574	22,072	22,751	23,882	24,900	31,172	37,139	38,573	40,230	41,294	42,803	44,134	46,332	50,513
Totals by component						8,809,993	208,840	202,007	221,707	293,552	346,329	409,810	452,130	481,425	505,293	510,971	541,243	556,774	584,479	643,597
Totals per Strategist (Exhibit 14)						8,809,986	208,840	202,007	221,707	293,552	346,329	409,802	452,130	481,424	505,293	510,971	541,243	556,774	584,479	643,597
Difference						7	0	0	(0)	0	(0)	7	0	0	0	0	(0)	0	0	(0)
Total fuel above							134,329	126,674	144,920	214,914	263,961	273,762	257,040	274,869	296,184	292,069	306,844	307,855	334,168	372,550
Plus fuel component of CBPP PPA							4,460	4,564	5,000	5,420	5,629	5,755	5,886	6,117	6,342	6,506	6,618	6,753	6,901	599
							138,790	131,239	149,921	220,334	269,590	279,517	262,927	280,986	302,525	298,576	313,462	314,609	341,069	373,148
Fuel per Exhibit 14							138,790	131,239	149,921	220,334	269,590	279,509	262,927	280,986	302,525	298,576	313,462	314,609	341,069	373,148
							0	0	(0)	0	(0)	7	0	0	0	0	(0)	0	(0)	(0)

Muskrat Falls Project - Exhibit 99
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NEWFOUNDLAND AND LABRADOR HYDRO GENERATION EXPANSION AT
 2010 ISLAND ISOLATED SCENARIO (\$000)

WACC	8.00%	InSvcyr	InSvcMo	InSvcCost	SerLife	Ins Rate	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
TOTAL FIXED CHARGES							158,059	164,594	159,564	155,510	167,211	179,954	175,612	180,691	174,227	175,501	256,201	256,966	237,793	254,265	247,299	240,334	233,369
Return on Rate Base:																							
Beginning NBV							1,336,835	1,277,958	1,215,086	1,248,912	1,374,602	1,309,110	1,335,500	1,258,459	1,177,655	1,908,064	1,923,484	1,814,409	2,193,529	2,094,450	2,007,385	1,920,320	1,833,256
Depreciation							58,877	62,872	62,872	63,194	69,101	76,227	77,041	80,804	80,804	83,057	109,075	112,768	99,079	87,065	87,065	87,065	87,065
Ending NBV							1,277,958	1,215,086	1,152,214	1,185,718	1,305,502	1,232,883	1,258,459	1,177,655	1,096,851	1,825,006	1,814,409	1,701,641	2,094,450	2,007,385	1,920,320	1,833,256	1,746,191
Average NBV							1,216,196	1,246,522	1,183,650	1,128,823	1,199,274	1,267,709	1,203,070	1,218,057	1,137,253	1,123,956	1,795,550	1,758,025	1,693,718	2,050,917	1,963,853	1,876,788	1,789,723
Return on rate base %																							
Return on rate base \$000							97,296	99,722	94,692	90,306	95,942	101,417	96,246	97,445	90,980	89,916	143,644	140,642	135,497	164,073	157,108	150,143	143,178
Insurance							1,886	2,000	2,000	2,010	2,169	2,311	2,325	2,443	2,443	2,527	3,482	3,555	3,217	3,127	3,127	3,127	3,127
Total Fixed Charges - Detail Calculations							158,059	164,594	159,564	155,510	167,211	179,954	175,612	180,691	174,227	175,501	256,201	256,966	237,793	254,265	247,299	240,334	233,369
Per Exhibit 14 - Isolated							158,059	164,593	159,564	155,510	167,211	179,954	175,612	180,691	174,227	175,501	256,201	256,965	237,793	254,265	247,299	240,334	233,369
Difference between Exhibit 14 and detail calculations							(0)	(1)	(1)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
ISLAND POND	2015	11	199,118	60	0.100%		17,146	16,881	16,615	16,350	16,084	15,819	15,553	15,288	15,022	14,757	14,491	14,226	13,960	13,695	13,429	13,164	12,898
Return on Rate Base:																							
Beginning NBV							172,016	168,697	165,379	162,060	158,741	155,423	152,104	148,785	145,467	142,148	138,829	135,511	132,192	128,874	125,555	122,236	118,918
Depreciation							3,319	3,319	3,319	3,319	3,319	3,319	3,319	3,319	3,319	3,319	3,319	3,319	3,319	3,319	3,319	3,319	3,319
Ending NBV							168,697	165,379	162,060	158,741	155,423	152,104	148,785	145,467	142,148	138,829	135,511	132,192	128,874	125,555	122,236	118,918	115,599
Average NBV							170,357	167,038	163,719	160,401	157,082	153,763	150,445	147,126	143,807	140,489	137,170	133,852	130,533	127,214	123,896	120,577	117,258
Return on rate base %							8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Return on rate base \$000							13,629	13,363	13,098	12,832	12,567	12,301	12,036	11,770	11,505	11,239	10,974	10,708	10,443	10,177	9,912	9,646	9,381
Insurance							199	199	199	199	199	199	199	199	199	199	199	199	199	199	199	199	199
Fixed Charges							17,146	16,881	16,615	16,350	16,084	15,819	15,553	15,288	15,022	14,757	14,491	14,226	13,960	13,695	13,429	13,164	12,898
HRD ESP	2015	7	581,976	21	0.125%		55,045	52,828	50,611	48,394	46,177	43,960	41,743	39,526	37,309	35,092	32,875	30,658	14,775	0	0	0	0
Return on Rate Base:																							
Beginning NBV							346,414	318,701	290,988	263,275	235,562	207,849	180,135	152,422	124,709	96,996	69,283	41,570	13,857	0	0	0	0
Depreciation							27,713	27,713	27,713	27,713	27,713	27,713	27,713	27,713	27,713	27,713	27,713	27,713	13,857	0	0	0	0
Ending NBV							318,701	290,988	263,275	235,562	207,849	180,135	152,422	124,709	96,996	69,283	41,570	13,857	0	0	0	0	0
Average NBV							332,558	304,845	277,131	249,418	221,705	193,992	166,279	138,566	110,853	83,139	55,426	27,713	6,928	0	0	0	0
Return on rate base %							8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Return on rate base \$000							26,605	24,388	22,171	19,953	17,736	15,519	13,302	11,085	8,868	6,651	4,434	2,217	554	0	0	0	0
Insurance							727	727	727	727	727	727	727	727	727	727	727	727	364	0	0	0	0
Fixed Charges							55,045	52,828	50,611	48,394	46,177	43,960	41,743	39,526	37,309	35,092	32,875	30,658	14,775	0	0	0	0

NEWFOUNDLAND AND LABRADOR HYDRO GENERATION EXPANSION AT
2010 ISLAND ISOLATED SCENARIO (\$000)

WACC	8.00%	InSvcyr	InSvcMo	InSvcCost	SerLife	Ins Rate	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	
HRD UPG	2016	12	100,000	20	0.125%		10,092	9,692	9,292	8,892	8,492	8,092	7,692	7,292	6,892	6,492	6,092	5,692	4,881	0	0	0	0	
Return on Rate Base:																								
Beginning NBV							64,583	59,583	54,583	49,583	44,583	39,583	34,583	29,583	24,583	19,583	14,583	9,583	4,583	0	0	0	0	
Depreciation							5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	4,583	0	0	0	0	
Ending NBV							59,583	54,583	49,583	44,583	39,583	34,583	29,583	24,583	19,583	14,583	9,583	4,583	0	0	0	0	0	
Average NBV							62,083	57,083	52,083	47,083	42,083	37,083	32,083	27,083	22,083	17,083	12,083	7,083	2,292	0	0	0	0	
Return on rate base %							8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	
Return on rate base \$000							4,967	4,567	4,167	3,767	3,367	2,967	2,567	2,167	1,767	1,367	967	567	183	0	0	0	0	
Insurance							125	125	125	125	125	125	125	125	125	125	125	125	115	0	0	0	0	
Fixed Charges							10,092	9,692	9,292	8,892	8,492	8,092	7,692	7,292	6,892	6,492	6,092	5,692	4,881	0	0	0	0	
21																								
HRD LOW Nox	2017	12	19,816	19	0.125%		2,104	2,020	1,937	1,853	1,770	1,687	1,603	1,520	1,436	1,353	1,269	1,186	1,017	0	0	0	0	
Return on Rate Base:																								
Beginning NBV							13,471	12,428	11,386	10,343	9,300	8,257	7,214	6,171	5,128	4,085	3,042	1,999	956	0	0	0	0	
Depreciation							1,043	1,043	1,043	1,043	1,043	1,043	1,043	1,043	1,043	1,043	1,043	1,043	956	0	0	0	0	
Ending NBV							12,428	11,386	10,343	9,300	8,257	7,214	6,171	5,128	4,085	3,042	1,999	956	0	0	0	0	0	
Average NBV							12,950	11,907	10,864	9,821	8,778	7,735	6,692	5,649	4,606	3,563	2,520	1,478	478	0	0	0	0	
Return on rate base %							8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	
Return on rate base \$000							1,036	953	869	786	702	619	535	452	369	285	202	118	38	0	0	0	0	
Insurance							25	25	25	25	25	25	25	25	25	25	25	25	23	0	0	0	0	
Fixed Charges							2,104	2,020	1,937	1,853	1,770	1,687	1,603	1,520	1,436	1,353	1,269	1,186	1,017	0	0	0	0	
21																								
PORTLAND	2018	12	110,936	60	0.100%		10,009	9,861	9,713	9,565	9,417	9,269	9,121	8,973	8,826	8,678	8,530	8,382	8,234	8,086	7,938	7,790	7,642	
Return on Rate Base:																								
Beginning NBV							101,537	99,688	97,839	95,990	94,142	92,293	90,444	88,595	86,746	84,897	83,048	81,199	79,350	77,501	75,652	73,803	71,954	
Depreciation							1,849	1,849	1,849	1,849	1,849	1,849	1,849	1,849	1,849	1,849	1,849	1,849	1,849	1,849	1,849	1,849	1,849	
Ending NBV							99,688	97,839	95,990	94,142	92,293	90,444	88,595	86,746	84,897	83,048	81,199	79,350	77,501	75,652	73,803	71,954	70,105	
Average NBV							100,613	98,764	96,915	95,066	93,217	91,368	89,519	87,670	85,821	83,972	82,123	80,275	78,426	76,577	74,728	72,879	71,030	
Return on rate base %							8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	
Return on rate base \$000							8,049	7,901	7,753	7,605	7,457	7,309	7,162	7,014	6,866	6,718	6,570	6,422	6,274	6,126	5,978	5,830	5,682	
Insurance							111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	
Fixed Charges							10,009	9,861	9,713	9,565	9,417	9,269	9,121	8,973	8,826	8,678	8,530	8,382	8,234	8,086	7,938	7,790	7,642	

NEWFOUNDLAND AND LABRADOR HYDRO GENERATION EXPANSION AT
2010 ISLAND ISOLATED SCENARIO (\$000)
WACC 8.00%

	InSvcyr	InSvcMo	InSvcCost	SerLife	Ins Rate	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
HRD ISOL1	2019	12	120,973	17	0.125%	14,336	13,767	13,197	12,628	12,059	11,489	10,920	10,351	9,782	9,212	8,643	8,074	6,923	0	0	0	0
Return on Rate Base:																						
Beginning NBV						91,916	84,800	77,684	70,568	63,452	56,335	49,219	42,103	34,987	27,871	20,755	13,639	6,523	0	0	0	0
Depreciation						7,116	7,116	7,116	7,116	7,116	7,116	7,116	7,116	7,116	7,116	7,116	7,116	6,523	0	0	0	0
Ending NBV						84,800	77,684	70,568	63,452	56,335	49,219	42,103	34,987	27,871	20,755	13,639	6,523	0	0	0	0	0
Average NBV						88,358	81,242	74,126	67,010	59,893	52,777	45,661	38,545	31,429	24,313	17,197	10,081	3,262	0	0	0	0
Return on rate base %						8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Return on rate base \$000						7,069	6,499	5,930	5,361	4,791	4,222	3,653	3,084	2,514	1,945	1,376	806	261	0	0	0	0
Insurance						151	151	151	151	151	151	151	151	151	151	151	151	139	0	0	0	0
Fixed Charges						14,336	13,767	13,197	12,628	12,059	11,489	10,920	10,351	9,782	9,212	8,643	8,074	6,923	0	0	0	0
																						126
ROUND POND	2020	12	185,355	60	0.100%	17,217	16,970	16,723	16,476	16,229	15,982	15,735	15,487	15,240	14,993	14,746	14,499	14,252	14,005	13,757	13,510	13,263
Return on Rate Base:																						
Beginning NBV						175,830	172,741	169,651	166,562	163,473	160,384	157,294	154,205	151,116	148,027	144,937	141,848	138,759	135,670	132,580	129,491	126,402
Depreciation						3,089	3,089	3,089	3,089	3,089	3,089	3,089	3,089	3,089	3,089	3,089	3,089	3,089	3,089	3,089	3,089	3,089
Ending NBV						172,741	169,651	166,562	163,473	160,384	157,294	154,205	151,116	148,027	144,937	141,848	138,759	135,670	132,580	129,491	126,402	123,313
Average NBV						174,285	171,196	168,107	165,017	161,928	158,839	155,750	152,660	149,571	146,482	143,393	140,303	137,214	134,125	131,036	127,946	124,857
Return on rate base %						8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Return on rate base \$000						13,943	13,696	13,449	13,201	12,954	12,707	12,460	12,213	11,966	11,719	11,471	11,224	10,977	10,730	10,483	10,236	9,989
Insurance						185	185	185	185	185	185	185	185	185	185	185	185	185	185	185	185	185
Fixed Charges						17,217	16,970	16,723	16,476	16,229	15,982	15,735	15,487	15,240	14,993	14,746	14,499	14,252	14,005	13,757	13,510	13,263
CCCT 170	2022	12	281,562	30	0.125%	31,073	30,323	29,572	28,821	28,070	27,319	26,569	25,818	25,067	24,316	23,565	22,814	22,064	21,313	20,562	19,811	19,060
Return on Rate Base:																						
Beginning NBV						271,394	262,009	252,624	243,238	233,853	224,467	215,082	205,697	196,311	186,926	177,540	168,155	158,770	149,384	139,999	130,613	121,228
Depreciation						9,385	9,385	9,385	9,385	9,385	9,385	9,385	9,385	9,385	9,385	9,385	9,385	9,385	9,385	9,385	9,385	9,385
Ending NBV						262,009	252,624	243,238	233,853	224,467	215,082	205,697	196,311	186,926	177,540	168,155	158,770	149,384	139,999	130,613	121,228	111,843
Average NBV						266,702	257,316	247,931	238,546	229,160	219,775	210,389	201,004	191,619	182,233	172,848	163,462	154,077	144,692	135,306	125,921	116,535
Return on rate base %						8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Return on rate base \$000						21,336	20,585	19,834	19,084	18,333	17,582	16,831	16,080	15,329	14,579	13,828	13,077	12,326	11,575	10,824	10,074	9,323
Insurance						352	352	352	352	352	352	352	352	352	352	352	352	352	352	352	352	352
Fixed Charges						31,073	30,323	29,572	28,821	28,070	27,319	26,569	25,818	25,067	24,316	23,565	22,814	22,064	21,313	20,562	19,811	19,060

NEWFOUNDLAND AND LABRADOR HYDRO GENERATION EXPANSION AT
2010 ISLAND ISOLATED SCENARIO (\$000)
WACC 8.00%

	InSvcyr	InSvcMo	InSvcCost	SerLife	Ins Rate	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	
GT50	2024	12	91,125	25	0.125%	920	10,879	10,587	10,296	10,004	9,712	9,421	9,129	8,838	8,546	8,254	7,963	7,671	7,380	7,088	6,796	6,505	
Return on Rate Base:																							
Beginning NBV						91,125	90,821	87,176	83,531	79,886	76,241	72,596	68,951	65,306	61,661	58,016	54,371	50,726	47,081	43,436	39,791	36,146	
Depreciation						304	3,645	3,645	3,645	3,645	3,645	3,645	3,645	3,645	3,645	3,645	3,645	3,645	3,645	3,645	3,645	3,645	
Ending NBV						90,821	87,176	83,531	79,886	76,241	72,596	68,951	65,306	61,661	58,016	54,371	50,726	47,081	43,436	39,791	36,146	32,501	
Average NBV						7,581	88,999	85,354	81,709	78,064	74,419	70,774	67,129	63,484	59,839	56,194	52,549	48,904	45,259	41,614	37,969	34,324	
Return on rate base %						8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	
Return on rate base \$000						606	7,120	6,828	6,537	6,245	5,954	5,662	5,370	5,079	4,787	4,496	4,204	3,912	3,621	3,329	3,038	2,746	
Insurance						9	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	
Fixed Charges						920	10,879	10,587	10,296	10,004	9,712	9,421	9,129	8,838	8,546	8,254	7,963	7,671	7,380	7,088	6,796	6,505	
HRD ISOL2	2024	12	8,548	12	0.125%	117	1,374	1,317	1,260	1,203	1,146	1,089	1,032	975	918	861	804	689	0	0	0	0	
Return on Rate Base:																							
Beginning NBV						8,548	8,489	7,776	7,064	6,352	5,639	4,927	4,215	3,502	2,790	2,078	1,365	653	0	0	0	0	
Depreciation						59	712	712	712	712	712	712	712	712	712	712	712	653	0	0	0	0	
Ending NBV						8,489	7,776	7,064	6,352	5,639	4,927	4,215	3,502	2,790	2,078	1,365	653	0	0	0	0	0	
Average NBV						710	8,132	7,420	6,708	5,995	5,283	4,571	3,858	3,146	2,434	1,721	1,009	326	0	0	0	0	
Return on rate base %						8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	
Return on rate base \$000						57	651	594	537	480	423	366	309	252	195	138	81	26	0	0	0	0	
Insurance						1	11	11	11	11	11	11	11	11	11	11	11	10	0	0	0	0	
Fixed Charges						117	1,374	1,317	1,260	1,203	1,146	1,089	1,032	975	918	861	804	689	0	0	0	0	
																							9
GT50	2027	12	96,698	25	0.125%	0	0	0	976	11,544	11,235	10,925	10,616	10,306	9,997	9,688	9,378	9,069	8,759	8,450	8,140	7,831	
Return on Rate Base:																							
Beginning NBV						0	0	0	96,698	96,376	92,508	88,640	84,772	80,904	77,036	73,168	69,300	65,432	61,564	57,696	53,829	49,961	
Depreciation						0	0	0	322	3,868	3,868	3,868	3,868	3,868	3,868	3,868	3,868	3,868	3,868	3,868	3,868	3,868	
Ending NBV						0	0	0	96,376	92,508	88,640	84,772	80,904	77,036	73,168	69,300	65,432	61,564	57,696	53,829	49,961	46,093	
Average NBV						0	0	0	8,045	94,442	90,574	86,706	82,838	78,970	75,102	71,234	67,366	63,498	59,630	55,763	51,895	48,027	
Return on rate base %						8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	
Return on rate base \$000						0	0	0	644	7,555	7,246	6,936	6,627	6,318	6,008	5,699	5,389	5,080	4,770	4,461	4,152	3,842	
Insurance						0	0	0	10	121	121	121	121	121	121	121	121	121	121	121	121	121	
Fixed Charges						0	0	0	976	11,544	11,235	10,925	10,616	10,306	9,997	9,688	9,378	9,069	8,759	8,450	8,140	7,831	

NEWFOUNDLAND AND LABRADOR HYDRO GENERATION EXPANSION AT
2010 ISLAND ISOLATED SCENARIO (\$000)
WACC 8.00%

	InSvcyr	InSvcMo	InSvcCost	SerLife	Ins Rate	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
WIND2x27	2028	10	188,884	20	0.100%	0	0	0	0	6,162	24,177	23,422	22,666	21,911	21,155	20,399	19,644	18,888	18,133	17,377	16,622	15,866
Return on Rate Base:																						
Beginning NBV						0	0	0	0	188,884	186,523	177,079	167,635	158,190	148,746	139,302	129,858	120,414	110,969	101,525	92,081	82,637
Depreciation						0	0	0	0	2,361	9,444	9,444	9,444	9,444	9,444	9,444	9,444	9,444	9,444	9,444	9,444	9,444
Ending NBV						0	0	0	0	186,523	177,079	167,635	158,190	148,746	139,302	129,858	120,414	110,969	101,525	92,081	82,637	73,193
Average NBV						0	0	0	0	46,926	181,801	172,357	162,912	153,468	144,024	134,580	125,136	115,691	106,247	96,803	87,359	77,915
Return on rate base %						8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Return on rate base \$000						0	0	0	0	3,754	14,544	13,789	13,033	12,277	11,522	10,766	10,011	9,255	8,500	7,744	6,989	6,233
Insurance						0	0	0	0	47	189	189	189	189	189	189	189	189	189	189	189	189
Fixed Charges						0	0	0	0	6,162	24,177	23,422	22,666	21,911	21,155	20,399	19,644	18,888	18,133	17,377	16,622	15,866
4																						
HRD ISOL2	2029	12	3,608	7	0.125%	0	0	0	0	0	67	785	743	702	661	620	578	496	0	0	0	0
Return on Rate Base:																						
Beginning NBV						0	0	0	0	0	3,608	3,565	3,050	2,534	2,019	1,503	988	472	0	0	0	0
Depreciation						0	0	0	0	0	43	515	515	515	515	515	515	472	0	0	0	0
Ending NBV						0	0	0	0	0	3,565	3,050	2,534	2,019	1,503	988	472	0	0	0	0	0
Average NBV						0	0	0	0	0	299	3,307	2,792	2,276	1,761	1,246	730	236	0	0	0	0
Return on rate base %						8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Return on rate base \$000						0	0	0	0	0	24	265	223	182	141	100	58	19	0	0	0	0
Insurance						0	0	0	0	0	0	5	5	5	5	5	5	4	0	0	0	0
Fixed Charges						0	0	0	0	0	67	785	743	702	661	620	578	496	0	0	0	0
4																						
GT50	2030	12	102,617	25	0.125%	0	0	0	0	0	0	1,036	12,251	11,922	11,594	11,266	10,937	10,609	10,281	9,952	9,624	9,295
Return on Rate Base:																						
Beginning NBV						0	0	0	0	0	0	102,617	102,275	98,170	94,066	89,961	85,856	81,752	77,647	73,542	69,438	65,333
Depreciation						0	0	0	0	0	0	342	4,105	4,105	4,105	4,105	4,105	4,105	4,105	4,105	4,105	4,105
Ending NBV						0	0	0	0	0	0	102,275	98,170	94,066	89,961	85,856	81,752	77,647	73,542	69,438	65,333	61,228
Average NBV						0	0	0	0	0	0	8,537	100,223	96,118	92,013	87,909	83,804	79,699	75,595	71,490	67,385	63,280
Return on rate base %						8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Return on rate base \$000						0	0	0	0	0	0	683	8,018	7,689	7,361	7,033	6,704	6,376	6,048	5,719	5,391	5,062
Insurance						0	0	0	0	0	0	11	128	128	128	128	128	128	128	128	128	128
Fixed Charges						0	0	0	0	0	0	1,036	12,251	11,922	11,594	11,266	10,937	10,609	10,281	9,952	9,624	9,295

NEWFOUNDLAND AND LABRADOR HYDRO GENERATION EXPANSION AT
2010 ISLAND ISOLATED SCENARIO (\$000)
WACC 8.00%

	InSvcyr	InSvcMo	InSvcCost	SerLife	Ins Rate	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
CCCT170G2	2033	12	346,330	30	0.125%	0	0	0	0	0	0	0	0	0	3,304	39,145	38,221	37,298	36,374	35,451	34,527	33,604
Return on Rate Base:																						
Beginning NBV						0	0	0	0	0	0	0	0	0	346,330	345,368	333,824	322,279	310,735	299,191	287,646	276,102
Depreciation						0	0	0	0	0	0	0	0	0	962	11,544	11,544	11,544	11,544	11,544	11,544	11,544
Ending NBV						0	0	0	0	0	0	0	0	0	345,368	333,824	322,279	310,735	299,191	287,646	276,102	264,558
Average NBV						0	0	0	0	0	0	0	0	0	28,821	339,596	328,051	316,507	304,963	293,418	281,874	270,330
Return on rate base %						8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Return on rate base \$000						0	0	0	0	0	0	0	0	0	2,306	27,168	26,244	25,321	24,397	23,473	22,550	21,626
Insurance						0	0	0	0	0	0	0	0	0	36	433	433	433	433	433	433	433
Fixed Charges						0	0	0	0	0	0	0	0	0	3,304	39,145	38,221	37,298	36,374	35,451	34,527	33,604
CCCT170G1	2033	12	464,883	30	0.125%	0	0	0	0	0	0	0	0	0	4,435	52,545	51,305	50,065	48,826	47,586	46,346	45,107
Return on Rate Base:																						
Beginning NBV						0	0	0	0	0	0	0	0	0	464,883	463,592	448,096	432,599	417,103	401,607	386,111	370,615
Depreciation						0	0	0	0	0	0	0	0	0	1,291	15,496	15,496	15,496	15,496	15,496	15,496	15,496
Ending NBV						0	0	0	0	0	0	0	0	0	463,592	448,096	432,599	417,103	401,607	386,111	370,615	355,119
Average NBV						0	0	0	0	0	0	0	0	0	38,686	455,844	440,348	424,851	409,355	393,859	378,363	362,867
Return on rate base %						8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Return on rate base \$000						0	0	0	0	0	0	0	0	0	3,095	36,467	35,228	33,988	32,748	31,509	30,269	29,029
Insurance						0	0	0	0	0	0	0	0	0	48	581	581	581	581	581	581	581
Fixed Charges						0	0	0	0	0	0	0	0	0	4,435	52,545	51,305	50,065	48,826	47,586	46,346	45,107
WIND25	2034	10	98,478	20	0.100%	0	0	0	0	0	0	0	0	0	0	3,213	12,605	12,211	11,817	11,423	11,030	10,636
Return on Rate Base:																						
Beginning NBV						0	0	0	0	0	0	0	0	0	0	98,478	97,247	92,323	87,399	82,475	77,551	72,628
Depreciation						0	0	0	0	0	0	0	0	0	0	1,231	4,924	4,924	4,924	4,924	4,924	4,924
Ending NBV						0	0	0	0	0	0	0	0	0	0	97,247	92,323	87,399	82,475	77,551	72,628	67,704
Average NBV						0	0	0	0	0	0	0	0	0	0	24,466	94,785	89,861	84,937	80,013	75,089	70,166
Return on rate base %						8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Return on rate base \$000						0	0	0	0	0	0	0	0	0	0	1,957	7,583	7,189	6,795	6,401	6,007	5,613
Insurance						0	0	0	0	0	0	0	0	0	0	25	98	98	98	98	98	98
Fixed Charges						0	0	0	0	0	0	0	0	0	0	3,213	12,605	12,211	11,817	11,423	11,030	10,636

NEWFOUNDLAND AND LABRADOR HYDRO GENERATION EXPANSION AT
2010 ISLAND ISOLATED SCENARIO (\$000)

WACC 8.00%

	InSvcyr	InSvcMo	InSvcCost	SerLife	Ins Rate	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
TOTAL FUEL EXPENSE						394,343	414,736	441,617	470,772	499,152	529,051	558,974	589,878	622,150	655,253	822,615	861,721	934,561	1,020,566	1,066,064	1,112,927	1,158,367
No. 2 Fuel Expense						11,229	13,972	17,631	21,934	25,760	31,259	36,526	42,471	48,430	55,691	589,378	623,812	791,602	1,020,566	1,066,064	1,112,927	1,158,367
\$/litre						1.275	1.315	1.340	1.365	1.395	1.425	1.450	1.480	1.510	1.540	1.570	1.600	1.635	1.665	1.700	1.735	1.770
\$/bbl			158.97			202.70	209.00	213.00	217.00	221.80	226.50	230.50	235.30	240.00	244.80	249.60	254.40	259.90	264.70	270.20	275.80	281.40
Barrels (000's)						55.4	66.9	82.8	101.1	116.1	138.0	158.5	180.5	201.8	227.5	2,361.3	2,452.1	3,045.8	3,855.6	3,945.5	4,035.3	4,116.4
No. 6 Fuel Expense						383,114	400,763	423,986	448,837	473,392	497,791	522,448	547,407	573,720	599,562	233,238	237,908	142,959	0	0	0	0
\$/bbl						131.10	133.70	136.40	139.10	141.90	144.80	147.70	150.60	153.60	156.70	159.80	163.00	166.30				
Barrels (000's)						2922.241	2997.497	3108.341	3226.727	3336.149	3437.735	3537.211	3634.869	3735.21	3826.244	1459.533	1459.533	859.6601	0	0	0	0
TOTAL POWER PURCHASE EXPENSE						58,287	58,594	58,906	59,225	55,713	44,938	45,195	45,458	45,725	45,998	43,770	36,822	37,058	37,298	37,544	37,794	38,050
Power purchase agreements - Other						58,287	58,594	58,906	59,225	55,713	44,938	45,195	45,458	45,725	45,998	43,770	36,822	37,058	37,298	37,544	37,794	38,050
Muskrat Falls power purchase cost						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL OPERATING COSTS						52,516	54,404	56,587	58,972	63,251	69,039	71,709	75,245	78,032	81,448	63,236	67,587	62,116	61,024	63,543	66,155	68,767
Totals by component						663,205	692,327	716,674	744,480	785,328	822,982	851,491	891,272	920,133	958,200	1,185,823	1,223,095	1,271,528	1,373,152	1,414,450	1,457,211	1,498,553
Totals per Strategist (Exhibit 14)						663,205	692,327	716,674	744,479	785,327	822,982	851,491	891,271	920,133	958,200	1,185,825	1,223,097	1,271,527	1,373,150	1,414,444	1,457,219	1,498,552
Difference						0	0	0	1	1	0	0	0	0	0	(3)	(2)	1	2	6	(9)	1
Total fuel above						394,343	414,736	441,617	470,772	499,152	529,051	558,974	589,878	622,150	655,253	822,615	861,721	934,561	1,020,566	1,066,064	1,112,927	1,158,367
Plus fuel component of CBPP PPA						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
						394,343	414,736	441,617	470,772	499,152	529,051	558,974	589,878	622,150	655,253	822,615	861,721	934,561	1,020,566	1,066,064	1,112,927	1,158,367
Fuel per Exhibit 14						394,343	414,736	441,617	470,772	499,152	529,051	558,974	589,878	622,150	655,253	822,618	861,723	934,560	1,020,564	1,066,058	1,112,936	1,158,366
						0	(0)	(0)	0	0	(0)	(0)	(0)	(0)	(0)	(3)	(3)	0	2	6	(9)	1

NEWFOUNDLAND AND LABRADOR HYDRO GENERATION EXPANSION AT
2010 ISLAND ISOLATED SCENARIO (\$000)

WACC	8.00%	InSvcyr	InSvcMo	InSvcCost	SerLife	Ins Rate	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056			
HRD UPG	2016	12	100,000	20	0.125%		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Return on Rate Base:																									
Beginning NBV							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Depreciation							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Ending NBV							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Average NBV							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Return on rate base %							8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	
Return on rate base \$000							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Insurance							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Fixed Charges							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
HRD LOW Nox	2017	12	19,816	19	0.125%		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Return on Rate Base:																									
Beginning NBV							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Depreciation							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Ending NBV							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Average NBV							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Return on rate base %							8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	
Return on rate base \$000							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Insurance							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Fixed Charges							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PORTLAND	2018	12	110,936	60	0.100%		7,494	7,346	7,199	7,051	6,903	6,755	6,607	6,459	6,311	6,163	6,015	5,867	5,719	5,571	5,424	5,276			
Return on Rate Base:																									
Beginning NBV							70,105	68,256	66,408	64,559	62,710	60,861	59,012	57,163	55,314	53,465	51,616	49,767	47,918	46,069	44,220	42,371	40,522		
Depreciation							1,849	1,849	1,849	1,849	1,849	1,849	1,849	1,849	1,849	1,849	1,849	1,849	1,849	1,849	1,849	1,849	1,849		
Ending NBV							68,256	66,408	64,559	62,710	60,861	59,012	57,163	55,314	53,465	51,616	49,767	47,918	46,069	44,220	42,371	40,522			
Average NBV							69,181	67,332	65,483	63,634	61,785	59,936	58,087	56,238	54,389	52,541	50,692	48,843	46,994	45,145	43,296	41,447			
Return on rate base %							8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	
Return on rate base \$000							5,534	5,387	5,239	5,091	4,943	4,795	4,647	4,499	4,351	4,203	4,055	3,907	3,759	3,612	3,464	3,316			
Insurance							111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111		
Fixed Charges							7,494	7,346	7,199	7,051	6,903	6,755	6,607	6,459	6,311	6,163	6,015	5,867	5,719	5,571	5,424	5,276			

NEWFOUNDLAND AND LABRADOR HYDRO GENERATION EXPANSION AT
2010 ISLAND ISOLATED SCENARIO (\$000)
WACC **8.00%**

	InSvcyr	InSvcMo	InSvcCost	SerLife	Ins Rate	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056
HRD ISOL1	2019	12	120,973	17	0.125%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Return on Rate Base:																					
Beginning NBV						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Depreciation						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ending NBV						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Average NBV						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Return on rate base %						8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Return on rate base \$000						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Insurance						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fixed Charges						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ROUND POND	2020	12	185,355	60	0.100%	13,016	12,769	12,522	12,275	12,027	11,780	11,533	11,286	11,039	10,792	10,545	10,298	10,050	9,803	9,556	9,309
Return on Rate Base:																					
Beginning NBV						123,313	120,223	117,134	114,045	110,956	107,866	104,777	101,688	98,599	95,509	92,420	89,331	86,242	83,152	80,063	76,974
Depreciation						3,089	3,089	3,089	3,089	3,089	3,089	3,089	3,089	3,089	3,089	3,089	3,089	3,089	3,089	3,089	3,089
Ending NBV						120,223	117,134	114,045	110,956	107,866	104,777	101,688	98,599	95,509	92,420	89,331	86,242	83,152	80,063	76,974	73,885
Average NBV						121,768	118,679	115,589	112,500	109,411	106,322	103,232	100,143	97,054	93,965	90,875	87,786	84,697	81,608	78,518	75,429
Return on rate base %						8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Return on rate base \$000						9,741	9,494	9,247	9,000	8,753	8,506	8,259	8,011	7,764	7,517	7,270	7,023	6,776	6,529	6,281	6,034
Insurance						185	185	185	185	185	185	185	185	185	185	185	185	185	185	185	185
Fixed Charges						13,016	12,769	12,522	12,275	12,027	11,780	11,533	11,286	11,039	10,792	10,545	10,298	10,050	9,803	9,556	9,309
CCCT 170	2022	12	281,562	30	0.125%	18,309	17,559	16,808	16,057	15,306	14,555	13,804	13,054	12,303	11,552	10,801	9,270	0	0	0	0
Return on Rate Base:																					
Beginning NBV						111,843	102,457	93,072	83,686	74,301	64,916	55,530	46,145	36,759	27,374	17,989	8,603	0	0	0	0
Depreciation						9,385	9,385	9,385	9,385	9,385	9,385	9,385	9,385	9,385	9,385	9,385	8,603	0	0	0	0
Ending NBV						102,457	93,072	83,686	74,301	64,916	55,530	46,145	36,759	27,374	17,989	8,603	0	0	0	0	0
Average NBV						107,150	97,765	88,379	78,994	69,608	60,223	50,838	41,452	32,067	22,681	13,296	4,302	0	0	0	0
Return on rate base %						8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Return on rate base \$000						8,572	7,821	7,070	6,320	5,569	4,818	4,067	3,316	2,565	1,815	1,064	344	0	0	0	0
Insurance						352	352	352	352	352	352	352	352	352	352	352	323	0	0	0	0
Fixed Charges						18,309	17,559	16,808	16,057	15,306	14,555	13,804	13,054	12,303	11,552	10,801	9,270	0	0	0	0

NEWFOUNDLAND AND LABRADOR HYDRO GENERATION EXPANSION AT
2010 ISLAND ISOLATED SCENARIO (\$000)
WACC 8.00%

	InSvcyr	InSvcMo	InSvcCost	SerLife	Ins Rate	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056
GT50	2024	12	91,125	25	0.125%	6,213	5,922	5,630	5,338	5,047	4,755	4,464	4,172	3,579	0	0	0	0	0	0	0
Return on Rate Base:																					
Beginning NBV						32,501	28,856	25,211	21,566	17,921	14,276	10,631	6,986	3,341	0	0	0	0	0	0	0
Depreciation						3,645	3,645	3,645	3,645	3,645	3,645	3,645	3,645	3,341	0	0	0	0	0	0	0
Ending NBV						28,856	25,211	21,566	17,921	14,276	10,631	6,986	3,341	0	0	0	0	0	0	0	0
Average NBV						30,679	27,034	23,389	19,744	16,099	12,454	8,809	5,164	1,671	0	0	0	0	0	0	0
Return on rate base %						8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Return on rate base \$000						2,454	2,163	1,871	1,580	1,288	996	705	413	134	0	0	0	0	0	0	0
Insurance						114	114	114	114	114	114	114	114	104	0	0	0	0	0	0	0
Fixed Charges						6,213	5,922	5,630	5,338	5,047	4,755	4,464	4,172	3,579	0	0	0	0	0	0	0
HRD ISOL2	2024	12	8,548	12	0.125%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Return on Rate Base:																					
Beginning NBV						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Depreciation						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ending NBV						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Average NBV						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Return on rate base %						8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Return on rate base \$000						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Insurance						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fixed Charges						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GT50	2027	12	96,698	25	0.125%	7,521	7,212	6,903	6,593	6,284	5,974	5,665	5,355	5,046	4,737	4,427	3,798	0	0	0	0
Return on Rate Base:																					
Beginning NBV						46,093	42,225	38,357	34,489	30,621	26,753	22,885	19,017	15,149	11,281	7,414	3,546	0	0	0	0
Depreciation						3,868	3,868	3,868	3,868	3,868	3,868	3,868	3,868	3,868	3,868	3,868	3,546	0	0	0	0
Ending NBV						42,225	38,357	34,489	30,621	26,753	22,885	19,017	15,149	11,281	7,414	3,546	0	0	0	0	0
Average NBV						44,159	40,291	36,423	32,555	28,687	24,819	20,951	17,083	13,215	9,347	5,480	1,773	0	0	0	0
Return on rate base %						8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Return on rate base \$000						3,533	3,223	2,914	2,604	2,295	1,986	1,676	1,367	1,057	748	438	142	0	0	0	0
Insurance						121	121	121	121	121	121	121	121	121	121	121	111	0	0	0	0
Fixed Charges						7,521	7,212	6,903	6,593	6,284	5,974	5,665	5,355	5,046	4,737	4,427	3,798	0	0	0	0

NEWFOUNDLAND AND LABRADOR HYDRO GENERATION EXPANSION AT
2010 ISLAND ISOLATED SCENARIO (\$000)

WACC		InSvcyr	InSvcMo	InSvcCost	SerLife	Ins Rate	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	
8.00%																							
WIND2x27	2028	10	188,884	20	0.100%		15,111	14,355	13,600	12,844	12,089	11,333	10,578	7,508	0	0	0	0	0	0	0	0	0
	Return on Rate Base:																						
	Beginning NBV						73,193	63,748	54,304	44,860	35,416	25,972	16,527	7,083	0	0	0	0	0	0	0	0	0
	Depreciation						9,444	9,444	9,444	9,444	9,444	9,444	9,444	7,083	0	0	0	0	0	0	0	0	0
	Ending NBV						63,748	54,304	44,860	35,416	25,972	16,527	7,083	0	0	0	0	0	0	0	0	0	0
	Average NBV						68,470	59,026	49,582	40,138	30,694	21,249	11,805	3,542	0	0	0	0	0	0	0	0	0
	Return on rate base %						8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
	Return on rate base \$000						5,478	4,722	3,967	3,211	2,455	1,700	944	283	0	0	0	0	0	0	0	0	0
	Insurance						189	189	189	189	189	189	189	142	0	0	0	0	0	0	0	0	0
	Fixed Charges						15,111	14,355	13,600	12,844	12,089	11,333	10,578	7,508	0	0	0	0	0	0	0	0	0
HRD ISOL2	2029	12	3,608	7	0.125%		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Return on Rate Base:																						
	Beginning NBV						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Depreciation						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Ending NBV						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average NBV						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Return on rate base %						8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
	Return on rate base \$000						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Insurance						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Fixed Charges						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GT50	2030	12	102,617	25	0.125%		8,967	8,639	8,310	7,982	7,654	7,325	6,997	6,668	6,340	6,012	5,683	5,355	5,027	4,698	4,031	0	0
	Return on Rate Base:																						
	Beginning NBV						61,228	57,123	53,019	48,914	44,809	40,705	36,600	32,495	28,391	24,286	20,181	16,077	11,972	7,867	3,763	0	0
	Depreciation						4,105	4,105	4,105	4,105	4,105	4,105	4,105	4,105	4,105	4,105	4,105	4,105	4,105	4,105	3,763	0	0
	Ending NBV						57,123	53,019	48,914	44,809	40,705	36,600	32,495	28,391	24,286	20,181	16,077	11,972	7,867	3,763	0	0	0
	Average NBV						59,176	55,071	50,966	46,862	42,757	38,652	34,548	30,443	26,338	22,234	18,129	14,024	9,920	5,815	1,881	0	0
	Return on rate base %						8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
	Return on rate base \$000						4,734	4,406	4,077	3,749	3,421	3,092	2,764	2,435	2,107	1,779	1,450	1,122	794	465	151	0	0
	Insurance						128	128	128	128	128	128	128	128	128	128	128	128	128	128	118	0	0
	Fixed Charges						8,967	8,639	8,310	7,982	7,654	7,325	6,997	6,668	6,340	6,012	5,683	5,355	5,027	4,698	4,031	0	0

NEWFOUNDLAND AND LABRADOR HYDRO GENERATION EXPANSION AT
2010 ISLAND ISOLATED SCENARIO (\$000)

WACC 8.00%

	InSvcyr	InSvcMo	InSvcCost	SerLife	Ins Rate	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056
CCCT170G2	2033	12	346,330	30	0.125%	32,680	31,757	30,833	29,909	28,986	28,062	27,139	26,215	25,292	24,368	23,445	22,521	21,598	20,674	19,750	18,827
Return on Rate Base:																					
Beginning NBV						264,558	253,013	241,469	229,925	218,380	206,836	195,292	183,747	172,203	160,659	149,114	137,570	126,026	114,481	102,937	91,393
Depreciation						11,544	11,544	11,544	11,544	11,544	11,544	11,544	11,544	11,544	11,544	11,544	11,544	11,544	11,544	11,544	11,544
Ending NBV						253,013	241,469	229,925	218,380	206,836	195,292	183,747	172,203	160,659	149,114	137,570	126,026	114,481	102,937	91,393	79,848
Average NBV						258,785	247,241	235,697	224,152	212,608	201,064	189,519	177,975	166,431	154,886	143,342	131,798	120,253	108,709	97,165	85,620
Return on rate base %						8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Return on rate base \$000						20,703	19,779	18,856	17,932	17,009	16,085	15,162	14,238	13,314	12,391	11,467	10,544	9,620	8,697	7,773	6,850
Insurance						433	433	433	433	433	433	433	433	433	433	433	433	433	433	433	433
Fixed Charges						32,680	31,757	30,833	29,909	28,986	28,062	27,139	26,215	25,292	24,368	23,445	22,521	21,598	20,674	19,750	18,827
CCCT170G1	2033	12	464,883	30	0.125%	43,867	42,627	41,388	40,148	38,908	37,668	36,429	35,189	33,949	32,710	31,470	30,230	28,991	27,751	26,511	25,272
Return on Rate Base:																					
Beginning NBV						355,119	339,623	324,127	308,631	293,135	277,638	262,142	246,646	231,150	215,654	200,158	184,662	169,166	153,670	138,174	122,677
Depreciation						15,496	15,496	15,496	15,496	15,496	15,496	15,496	15,496	15,496	15,496	15,496	15,496	15,496	15,496	15,496	15,496
Ending NBV						339,623	324,127	308,631	293,135	277,638	262,142	246,646	231,150	215,654	200,158	184,662	169,166	153,670	138,174	122,677	107,181
Average NBV						347,371	331,875	316,379	300,883	285,387	269,890	254,394	238,898	223,402	207,906	192,410	176,914	161,418	145,922	130,426	114,929
Return on rate base %						8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Return on rate base \$000						27,790	26,550	25,310	24,071	22,831	21,591	20,352	19,112	17,872	16,632	15,393	14,153	12,913	11,674	10,434	9,194
Insurance						581	581	581	581	581	581	581	581	581	581	581	581	581	581	581	581
Fixed Charges						43,867	42,627	41,388	40,148	38,908	37,668	36,429	35,189	33,949	32,710	31,470	30,230	28,991	27,751	26,511	25,272
WIND25	2034	10	98,478	20	0.100%	10,242	9,848	9,454	9,060	8,666	8,272	7,878	7,484	7,090	6,697	6,303	5,909	5,515	3,915	0	0
Return on Rate Base:																					
Beginning NBV						67,704	62,780	57,856	52,932	48,008	43,084	38,160	33,236	28,312	23,389	18,465	13,541	8,617	3,693	0	0
Depreciation						4,924	4,924	4,924	4,924	4,924	4,924	4,924	4,924	4,924	4,924	4,924	4,924	4,924	3,693	0	0
Ending NBV						62,780	57,856	52,932	48,008	43,084	38,160	33,236	28,312	23,389	18,465	13,541	8,617	3,693	0	0	0
Average NBV						65,242	60,318	55,394	50,470	45,546	40,622	35,698	30,774	25,850	20,927	16,003	11,079	6,155	1,846	0	0
Return on rate base %						8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Return on rate base \$000						5,219	4,825	4,432	4,038	3,644	3,250	2,856	2,462	2,068	1,674	1,280	886	492	148	0	0
Insurance						98	98	98	98	98	98	98	98	98	98	98	98	98	74	0	0
Fixed Charges						10,242	9,848	9,454	9,060	8,666	8,272	7,878	7,484	7,090	6,697	6,303	5,909	5,515	3,915	0	0

NEWFOUNDLAND AND LABRADOR HYDRO GENERATION EXPANSION AT
2010 ISLAND ISOLATED SCENARIO (\$000)

WACC 8.00%

	InSvcyr	InSvcMo	InSvcCost	SerLife	Ins Rate	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	
CCCT170G1	2036	12	491,888	30	0.125%	50,350	49,039	47,727	46,415	45,103	43,792	42,480	41,168	39,857	38,545	37,233	35,921	34,610	33,298	31,986	30,675	
Return on Rate Base:																						
Beginning NBV						424,937	408,540	392,144	375,748	359,352	342,955	326,559	310,163	293,766	277,370	260,974	244,578	228,181	211,785	195,389	178,993	
Depreciation						16,396	16,396	16,396	16,396	16,396	16,396	16,396	16,396	16,396	16,396	16,396	16,396	16,396	16,396	16,396	16,396	
Ending NBV						408,540	392,144	375,748	359,352	342,955	326,559	310,163	293,766	277,370	260,974	244,578	228,181	211,785	195,389	178,993	162,596	
Average NBV						416,738	400,342	383,946	367,550	351,153	334,757	318,361	301,965	285,568	269,172	252,776	236,380	219,983	203,587	187,191	170,794	
Return on rate base %						8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	
Return on rate base \$000						33,339	32,027	30,716	29,404	28,092	26,781	25,469	24,157	22,845	21,534	20,222	18,910	17,599	16,287	14,975	13,664	
Insurance						615	615	615	615	615	615	615	615	615	615	615	615	615	615	615	615	
Fixed Charges						50,350	49,039	47,727	46,415	45,103	43,792	42,480	41,168	39,857	38,545	37,233	35,921	34,610	33,298	31,986	30,675	
GT50	2042	12	130,143	25	0.125%	0	1,314	15,537	15,120	14,704	14,288	13,871	13,455	13,038	12,622	12,205	11,789	11,372	10,956	10,539	10,123	
Return on Rate Base:																						
Beginning NBV						0	130,143	129,709	124,503	119,298	114,092	108,886	103,681	98,475	93,269	88,063	82,858	77,652	72,446	67,241	62,035	
Depreciation						0	434	5,206	5,206	5,206	5,206	5,206	5,206	5,206	5,206	5,206	5,206	5,206	5,206	5,206	5,206	
Ending NBV						0	129,709	124,503	119,298	114,092	108,886	103,681	98,475	93,269	88,063	82,858	77,652	72,446	67,241	62,035	56,829	
Average NBV						0	10,827	127,106	121,901	116,695	111,489	106,283	101,078	95,872	90,666	85,461	80,255	75,049	69,843	64,638	59,432	
Return on rate base %						8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	
Return on rate base \$000						0	866	10,169	9,752	9,336	8,919	8,503	8,086	7,670	7,253	6,837	6,420	6,004	5,587	5,171	4,755	
Insurance						0	14	163	163	163	163	163	163	163	163	163	163	163	163	163	163	
Fixed Charges						0	1,314	15,537	15,120	14,704	14,288	13,871	13,455	13,038	12,622	12,205	11,789	11,372	10,956	10,539	10,123	
GT50	2046	12	140,871	25	0.125%	0	0	0	0	0	1,422	16,818	16,367	15,916	15,465	15,015	14,564	14,113	13,662	13,211	12,761	
Return on Rate Base:																						
Beginning NBV						0	0	0	0	0	140,871	140,401	134,767	129,132	123,497	117,862	112,227	106,592	100,958	95,323	89,688	
Depreciation						0	0	0	0	0	470	5,635	5,635	5,635	5,635	5,635	5,635	5,635	5,635	5,635	5,635	
Ending NBV						0	0	0	0	0	140,401	134,767	129,132	123,497	117,862	112,227	106,592	100,958	95,323	89,688	84,053	
Average NBV						0	0	0	0	0	11,720	137,584	131,949	126,314	120,679	115,045	109,410	103,775	98,140	92,505	86,870	
Return on rate base %						8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	
Return on rate base \$000						0	0	0	0	0	938	11,007	10,556	10,105	9,654	9,204	8,753	8,302	7,851	7,400	6,950	
Insurance						0	0	0	0	0	15	176	176	176	176	176	176	176	176	176	176	
Fixed Charges						0	0	0	0	0	1,422	16,818	16,367	15,916	15,465	15,015	14,564	14,113	13,662	13,211	12,761	

NEWFOUNDLAND AND LABRADOR HYDRO GENERATION EXPANSION AT
2010 ISLAND ISOLATED SCENARIO (\$000)

WACC 8.00%

	InSvcyr	InSvcMo	InSvcCost	SerLife	Ins Rate	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056
WIND2x27	2048	10	280,672	20	0.100%	0	0	0	0	0	0	0	9,157	35,926	34,803	33,681	32,558	31,435	30,313	29,190	28,067
Return on Rate Base:																					
Beginning NBV						0	0	0	0	0	0	0	280,672	277,164	263,130	249,096	235,063	221,029	206,996	192,962	178,928
Depreciation						0	0	0	0	0	0	0	3,508	14,034	14,034	14,034	14,034	14,034	14,034	14,034	14,034
Ending NBV						0	0	0	0	0	0	0	277,164	263,130	249,096	235,063	221,029	206,996	192,962	178,928	164,895
Average NBV						0	0	0	0	0	0	0	69,729	270,147	256,113	242,080	228,046	214,012	199,979	185,945	171,912
Return on rate base %						8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Return on rate base \$000						0	0	0	0	0	0	0	5,578	21,612	20,489	19,366	18,244	17,121	15,998	14,876	13,753
Insurance						0	0	0	0	0	0	0	70	281	281	281	281	281	281	281	281
Fixed Charges						0	0	0	0	0	0	0	9,157	35,926	34,803	33,681	32,558	31,435	30,313	29,190	28,067
GT50	2049	12	149,493	25	0.125%	0	0	0	0	0	0	0	0	1,509	17,847	17,369	16,890	16,412	15,933	15,455	14,977
Return on Rate Base:																					
Beginning NBV						0	0	0	0	0	0	0	0	149,493	148,995	143,015	137,035	131,056	125,076	119,096	113,116
Depreciation						0	0	0	0	0	0	0	0	498	5,980	5,980	5,980	5,980	5,980	5,980	5,980
Ending NBV						0	0	0	0	0	0	0	0	148,995	143,015	137,035	131,056	125,076	119,096	113,116	107,137
Average NBV						0	0	0	0	0	0	0	0	12,437	146,005	140,025	134,045	128,066	122,086	116,106	110,127
Return on rate base %						8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Return on rate base \$000						0	0	0	0	0	0	0	0	995	11,680	11,202	10,724	10,245	9,767	9,288	8,810
Insurance						0	0	0	0	0	0	0	0	16	187	187	187	187	187	187	187
Fixed Charges						0	0	0	0	0	0	0	0	1,509	17,847	17,369	16,890	16,412	15,933	15,455	14,977
CCCT170G2	2050	12	476,925	30	0.125%	0	0	0	0	0	0	0	0	0	4,550	53,906	52,634	51,362	50,090	48,819	47,547
Return on Rate Base:																					
Beginning NBV						0	0	0	0	0	0	0	0	0	476,925	475,600	459,703	443,805	427,908	412,010	396,113
Depreciation						0	0	0	0	0	0	0	0	0	1,325	15,898	15,898	15,898	15,898	15,898	15,898
Ending NBV						0	0	0	0	0	0	0	0	0	475,600	459,703	443,805	427,908	412,010	396,113	380,215
Average NBV						0	0	0	0	0	0	0	0	0	39,689	467,651	451,754	435,856	419,959	404,061	388,164
Return on rate base %						8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Return on rate base \$000						0	0	0	0	0	0	0	0	0	3,175	37,412	36,140	34,869	33,597	32,325	31,053
Insurance						0	0	0	0	0	0	0	0	0	50	596	596	596	596	596	596
Fixed Charges						0	0	0	0	0	0	0	0	0	4,550	53,906	52,634	51,362	50,090	48,819	47,547

NEWFOUNDLAND AND LABRADOR HYDRO GENERATION EXPANSION AT
2010 ISLAND ISOLATED SCENARIO (\$000)

WACC 8.00%

	InSvcyr	InSvcMo	InSvcCost	SerLife	Ins Rate	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056
TOTAL FUEL EXPENSE						1,203,138	1,250,490	1,298,998	1,351,094	1,404,988	1,459,856	1,516,563	1,573,601	1,632,927	1,688,989	1,747,918	1,809,141	1,871,649	1,935,709	1,999,940	2,070,621
No. 2 Fuel Expense						1,203,138	1,250,490	1,298,998	1,351,094	1,404,988	1,459,856	1,516,563	1,573,601	1,632,927	1,688,989	1,747,918	1,809,141	1,871,649	1,935,709	1,999,940	2,070,621
\$/litre						1.805	1.840	1.875	1.915	1.955	1.995	2.035	2.075	2.115	2.155	2.200	2.245	2.290	2.335	2.380	2.430
\$/bbl			158.97			286.90	292.50	298.10	304.40	310.80	317.10	323.50	329.90	336.20	342.60	349.70	356.90	364.00	371.20	378.30	386.30
Barrels (000's)						4,193.6	4,275.2	4,357.6	4,438.5	4,520.6	4,603.8	4,688.0	4,769.9	4,857.0	4,929.9	4,998.3	5,069.0	5,141.9	5,214.7	5,286.7	5,360.1
No. 6 Fuel Expense						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
\$/bbl																					
Barrels (000's)						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL POWER PURCHASE EXPENSE						38,310	38,576	38,847	39,124	39,406	39,694	39,987	40,286	40,592	40,903	41,221	41,545	41,875	42,212	42,556	42,907
Power purchase agreements - Other						38,310	38,576	38,847	39,124	39,406	39,694	39,987	40,286	40,592	40,903	41,221	41,545	41,875	42,212	42,556	42,907
Muskrat Falls power purchase cost						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL OPERATING COSTS						71,474	74,388	78,495	81,544	84,699	88,089	92,818	96,365	100,039	104,120	112,400	116,391	119,676	124,007	128,331	131,722
Totals by component						1,539,326	1,584,207	1,644,351	1,692,391	1,742,341	1,794,926	1,864,669	1,924,565	2,001,261	2,071,117	2,179,612	2,240,734	2,353,985	2,415,910	2,484,536	2,549,787
Totals per Strategist (Exhibit 14)						1,539,321	1,584,216	1,644,351	1,692,404	1,742,335	1,794,932	1,864,656	1,924,560	2,001,269	2,071,104	2,179,603	2,240,724	2,353,978	2,415,901	2,484,530	2,549,800
Difference						5	(10)	(0)	(13)	6	(6)	13	5	(7)	13	9	11	8	10	6	(13)
Total fuel above						1,203,138	1,250,490	1,298,998	1,351,094	1,404,988	1,459,856	1,516,563	1,573,601	1,632,927	1,688,989	1,747,918	1,809,141	1,871,649	1,935,709	1,999,940	2,070,621
Plus fuel component of CBPP PPA						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
						1,203,138	1,250,490	1,298,998	1,351,094	1,404,988	1,459,856	1,516,563	1,573,601	1,632,927	1,688,989	1,747,918	1,809,141	1,871,649	1,935,709	1,999,940	2,070,621
Fuel per Exhibit 14						1,203,133	1,250,500	1,298,998	1,351,107	1,404,983	1,459,862	1,516,550	1,573,596	1,632,934	1,688,976	1,747,908	1,809,130	1,871,641	1,935,699	1,999,934	2,070,634
						5	(10)	(0)	(13)	5	(6)	13	5	(7)	13	10	11	8	10	6	(13)

NEWFOUNDLAND AND LABRADOR HYDRO GENERATION EXPANSION AT
2010 ISLAND ISOLATED SCENARIO (\$000)

WACC 8.00%

	InSvcyr	InSvcMo	InSvcCost	SerLife	Ins Rate	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067
HRD UPG	2016	12	100,000	20	0.125%	0	0	0	0	0	0	0	0	0	0	0
Return on Rate Base:																
Beginning NBV						0	0	0	0	0	0	0	0	0	0	0
Depreciation						0	0	0	0	0	0	0	0	0	0	0
Ending NBV						0	0	0	0	0	0	0	0	0	0	0
Average NBV						0	0	0	0	0	0	0	0	0	0	0
Return on rate base %						8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Return on rate base \$000						0	0	0	0	0	0	0	0	0	0	0
Insurance						0	0	0	0	0	0	0	0	0	0	0
Fixed Charges						0	0	0	0	0	0	0	0	0	0	0
HRD LOW Nox	2017	12	19,816	19	0.125%	0	0	0	0	0	0	0	0	0	0	0
Return on Rate Base:																
Beginning NBV						0	0	0	0	0	0	0	0	0	0	0
Depreciation						0	0	0	0	0	0	0	0	0	0	0
Ending NBV						0	0	0	0	0	0	0	0	0	0	0
Average NBV						0	0	0	0	0	0	0	0	0	0	0
Return on rate base %						8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Return on rate base \$000						0	0	0	0	0	0	0	0	0	0	0
Insurance						0	0	0	0	0	0	0	0	0	0	0
Fixed Charges						0	0	0	0	0	0	0	0	0	0	0
PORTLAND	2018	12	110,936	60	0.100%	5,128	4,980	4,832	4,684	4,536	4,388	4,240	4,092	3,944	3,796	3,649
Return on Rate Base:																
Beginning NBV						40,522	38,674	36,825	34,976	33,127	31,278	29,429	27,580	25,731	23,882	22,033
Depreciation						1,849	1,849	1,849	1,849	1,849	1,849	1,849	1,849	1,849	1,849	1,849
Ending NBV						38,674	36,825	34,976	33,127	31,278	29,429	27,580	25,731	23,882	22,033	20,184
Average NBV						39,598	37,749	35,900	34,051	32,202	30,353	28,504	26,655	24,807	22,958	21,109
Return on rate base %						8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Return on rate base \$000						3,168	3,020	2,872	2,724	2,576	2,428	2,280	2,132	1,985	1,837	1,689
Insurance						111	111	111	111	111	111	111	111	111	111	111
Fixed Charges						5,128	4,980	4,832	4,684	4,536	4,388	4,240	4,092	3,944	3,796	3,649

NEWFOUNDLAND AND LABRADOR HYDRO GENERATION EXPANSION AT
2010 ISLAND ISOLATED SCENARIO (\$000)

WACC 8.00%

	InSvcyr	InSvcMo	InSvcCost	SerLife	Ins Rate	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	
CCCT170G1	2036	12	491,888	30	0.125%	29,363	28,051	26,740	25,428	24,116	22,804	21,493	20,181	18,869	16,195	0	
Return on Rate Base:																	
Beginning NBV						162,596	146,200	129,804	113,408	97,011	80,615	64,219	47,822	31,426	15,030	0	
Depreciation						16,396	16,396	16,396	16,396	16,396	16,396	16,396	16,396	16,396	16,396	15,030	0
Ending NBV						146,200	129,804	113,408	97,011	80,615	64,219	47,822	31,426	15,030	0	0	
Average NBV						154,398	138,002	121,606	105,209	88,813	72,417	56,021	39,624	23,228	7,515	0	
Return on rate base %						8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	
Return on rate base \$000						12,352	11,040	9,728	8,417	7,105	5,793	4,482	3,170	1,858	601	0	
Insurance						615	615	615	615	615	615	615	615	615	564	0	
Fixed Charges						29,363	28,051	26,740	25,428	24,116	22,804	21,493	20,181	18,869	16,195	0	
GT50	2042	12	130,143	25	0.125%	9,706	9,290	8,874	8,457	8,041	7,624	7,208	6,791	6,375	5,958	5,112	
Return on Rate Base:																	
Beginning NBV						56,829	51,623	46,418	41,212	36,006	30,801	25,595	20,389	15,183	9,978	4,772	
Depreciation						5,206	5,206	5,206	5,206	5,206	5,206	5,206	5,206	5,206	5,206	4,772	
Ending NBV						51,623	46,418	41,212	36,006	30,801	25,595	20,389	15,183	9,978	4,772	0	
Average NBV						54,226	49,021	43,815	38,609	33,403	28,198	22,992	17,786	12,580	7,375	2,386	
Return on rate base %						8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	
Return on rate base \$000						4,338	3,922	3,505	3,089	2,672	2,256	1,839	1,423	1,006	590	191	
Insurance						163	163	163	163	163	163	163	163	163	163	149	
Fixed Charges						9,706	9,290	8,874	8,457	8,041	7,624	7,208	6,791	6,375	5,958	5,112	
GT50	2046	12	140,871	25	0.125%	12,310	11,859	11,408	10,957	10,507	10,056	9,605	9,154	8,703	8,253	7,802	
Return on Rate Base:																	
Beginning NBV						84,053	78,418	72,783	67,149	61,514	55,879	50,244	44,609	38,974	33,339	27,705	
Depreciation						5,635	5,635	5,635	5,635	5,635	5,635	5,635	5,635	5,635	5,635	5,635	
Ending NBV						78,418	72,783	67,149	61,514	55,879	50,244	44,609	38,974	33,339	27,705	22,070	
Average NBV						81,236	75,601	69,966	64,331	58,696	53,061	47,427	41,792	36,157	30,522	24,887	
Return on rate base %						8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	
Return on rate base \$000						6,499	6,048	5,597	5,146	4,696	4,245	3,794	3,343	2,893	2,442	1,991	
Insurance						176	176	176	176	176	176	176	176	176	176	176	
Fixed Charges						12,310	11,859	11,408	10,957	10,507	10,056	9,605	9,154	8,703	8,253	7,802	

NEWFOUNDLAND AND LABRADOR HYDRO GENERATION EXPANSION AT
2010 ISLAND ISOLATED SCENARIO (\$000)

WACC	8.00%	InSvcyr	InSvcMo	InSvcCost	SerLife	Ins Rate	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067
WIND2x27	2048	10	280,672	20	0.100%		26,945	25,822	24,699	23,576	22,454	21,331	20,208	19,086	17,963	16,840	15,718
Return on Rate Base:																	
Beginning NBV							164,895	150,861	136,828	122,794	108,760	94,727	80,693	66,660	52,626	38,592	24,559
Depreciation							14,034	14,034	14,034	14,034	14,034	14,034	14,034	14,034	14,034	14,034	14,034
Ending NBV							150,861	136,828	122,794	108,760	94,727	80,693	66,660	52,626	38,592	24,559	10,525
Average NBV							157,878	143,844	129,811	115,777	101,744	87,710	73,676	59,643	45,609	31,576	17,542
Return on rate base %							8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Return on rate base \$000							12,630	11,508	10,385	9,262	8,139	7,017	5,894	4,771	3,649	2,526	1,403
Insurance							281	281	281	281	281	281	281	281	281	281	281
Fixed Charges							26,945	25,822	24,699	23,576	22,454	21,331	20,208	19,086	17,963	16,840	15,718
GT50	2049	12	149,493	25	0.125%		14,498	14,020	13,542	13,063	12,585	12,106	11,628	11,150	10,671	10,193	9,715
Return on Rate Base:																	
Beginning NBV							107,137	101,157	95,177	89,197	83,218	77,238	71,258	65,279	59,299	53,319	47,339
Depreciation							5,980	5,980	5,980	5,980	5,980	5,980	5,980	5,980	5,980	5,980	5,980
Ending NBV							101,157	95,177	89,197	83,218	77,238	71,258	65,279	59,299	53,319	47,339	41,360
Average NBV							104,147	98,167	92,187	86,208	80,228	74,248	68,268	62,289	56,309	50,329	44,350
Return on rate base %							8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Return on rate base \$000							8,332	7,853	7,375	6,897	6,418	5,940	5,461	4,983	4,505	4,026	3,548
Insurance							187	187	187	187	187	187	187	187	187	187	187
Fixed Charges							14,498	14,020	13,542	13,063	12,585	12,106	11,628	11,150	10,671	10,193	9,715
CCCT170G2	2050	12	476,925	30	0.125%		46,275	45,003	43,731	42,460	41,188	39,916	38,644	37,372	36,101	34,829	33,557
Return on Rate Base:																	
Beginning NBV							380,215	364,318	348,420	332,523	316,625	300,728	284,830	268,933	253,035	237,138	221,240
Depreciation							15,898	15,898	15,898	15,898	15,898	15,898	15,898	15,898	15,898	15,898	15,898
Ending NBV							364,318	348,420	332,523	316,625	300,728	284,830	268,933	253,035	237,138	221,240	205,343
Average NBV							372,266	356,369	340,471	324,574	308,676	292,779	276,881	260,984	245,086	229,189	213,291
Return on rate base %							8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Return on rate base \$000							29,781	28,510	27,238	25,966	24,694	23,422	22,151	20,879	19,607	18,335	17,063
Insurance							596	596	596	596	596	596	596	596	596	596	596
Fixed Charges							46,275	45,003	43,731	42,460	41,188	39,916	38,644	37,372	36,101	34,829	33,557

NEWFOUNDLAND AND LABRADOR HYDRO GENERATION EXPANSION AT
2010 ISLAND ISOLATED SCENARIO (\$000)

WACC 8.00%

	InSvcyr	InSvcMo	InSvcCost	SerLife	Ins Rate	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067
CCCT170G1	2052	12	664,743	30	0.125%	68,044	66,271	64,499	62,726	60,953	59,181	57,408	55,635	53,863	52,090	50,317
Return on Rate Base:																
Beginning NBV						574,264	552,106	529,948	507,790	485,632	463,474	441,315	419,157	396,999	374,841	352,683
Depreciation						22,158	22,158	22,158	22,158	22,158	22,158	22,158	22,158	22,158	22,158	22,158
Ending NBV						552,106	529,948	507,790	485,632	463,474	441,315	419,157	396,999	374,841	352,683	330,525
Average NBV						563,185	541,027	518,869	496,711	474,553	452,395	430,236	408,078	385,920	363,762	341,604
Return on rate base %						8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Return on rate base \$000						45,055	43,282	41,510	39,737	37,964	36,192	34,419	32,646	30,874	29,101	27,328
Insurance						831	831	831	831	831	831	831	831	831	831	831
Fixed Charges						68,044	66,271	64,499	62,726	60,953	59,181	57,408	55,635	53,863	52,090	50,317
WIND25	2054	10	146,333	20	0.100%	17,560	16,975	16,389	15,804	15,219	14,633	14,048	13,463	12,877	12,292	11,707
Return on Rate Base:																
Beginning NBV						129,871	122,554	115,237	107,921	100,604	93,287	85,971	78,654	71,337	64,021	56,704
Depreciation						7,317	7,317	7,317	7,317	7,317	7,317	7,317	7,317	7,317	7,317	7,317
Ending NBV						122,554	115,237	107,921	100,604	93,287	85,971	78,654	71,337	64,021	56,704	49,387
Average NBV						126,212	118,896	111,579	104,262	96,946	89,629	82,312	74,996	67,679	60,362	53,046
Return on rate base %						8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Return on rate base \$000						10,097	9,512	8,926	8,341	7,756	7,170	6,585	6,000	5,414	4,829	4,244
Insurance						146	146	146	146	146	146	146	146	146	146	146
Fixed Charges						17,560	16,975	16,389	15,804	15,219	14,633	14,048	13,463	12,877	12,292	11,707
CCCT170G2	2056	12	533,945	30	0.125%	60,351	58,927	57,503	56,079	54,655	53,231	51,807	50,384	48,960	47,536	46,112
Return on Rate Base:																
Beginning NBV						532,462	514,664	496,865	479,067	461,269	443,471	425,673	407,875	390,076	372,278	354,480
Depreciation						17,798	17,798	17,798	17,798	17,798	17,798	17,798	17,798	17,798	17,798	17,798
Ending NBV						514,664	496,865	479,067	461,269	443,471	425,673	407,875	390,076	372,278	354,480	336,682
Average NBV						523,563	505,765	487,966	470,168	452,370	434,572	416,774	398,976	381,177	363,379	345,581
Return on rate base %						8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Return on rate base \$000						41,885	40,461	39,037	37,613	36,190	34,766	33,342	31,918	30,494	29,070	27,646
Insurance						667	667	667	667	667	667	667	667	667	667	667
Fixed Charges						60,351	58,927	57,503	56,079	54,655	53,231	51,807	50,384	48,960	47,536	46,112

NEWFOUNDLAND AND LABRADOR HYDRO GENERATION EXPANSION AT
2010 ISLAND ISOLATED SCENARIO (\$000)

WACC 8.00%

	InSvcyr	InSvcMo	InSvcCost	SerLife	Ins Rate	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067
GT2x50	2063	12	394,506	25	0.125%	0	0	0	0	0	0	3,982	47,097	45,835	44,573	43,310
Return on Rate Base:																
Beginning NBV						0	0	0	0	0	0	394,506	393,191	377,411	361,631	345,850
Depreciation						0	0	0	0	0	0	1,315	15,780	15,780	15,780	15,780
Ending NBV						0	0	0	0	0	0	393,191	377,411	361,631	345,850	330,070
Average NBV						0	0	0	0	0	0	32,821	385,301	369,521	353,740	337,960
Return on rate base %						8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Return on rate base \$000						0	0	0	0	0	0	2,626	30,824	29,562	28,299	27,037
Insurance						0	0	0	0	0	0	41	493	493	493	493
Fixed Charges						0	0	0	0	0	0	3,982	47,097	45,835	44,573	43,310
CCCG170G1	2063	12	817,654	30	0.125%	0	0	0	0	0	0	7,800	92,418	90,237	88,057	85,876
Return on Rate Base:																
Beginning NBV						0	0	0	0	0	0	817,654	815,383	788,128	760,872	733,617
Depreciation						0	0	0	0	0	0	2,271	27,255	27,255	27,255	27,255
Ending NBV						0	0	0	0	0	0	815,383	788,128	760,872	733,617	706,362
Average NBV						0	0	0	0	0	0	68,043	801,755	774,500	747,245	719,990
Return on rate base %						8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Return on rate base \$000						0	0	0	0	0	0	5,443	64,140	61,960	59,780	57,599
Insurance						0	0	0	0	0	0	85	1,022	1,022	1,022	1,022
Fixed Charges						0	0	0	0	0	0	7,800	92,418	90,237	88,057	85,876
GT50	2064	12	201,198	25	0.125%	0	0	0	0	0	0	0	2,031	24,020	23,376	22,732
Return on Rate Base:																
Beginning NBV						0	0	0	0	0	0	0	201,198	200,527	192,479	184,432
Depreciation						0	0	0	0	0	0	0	671	8,048	8,048	8,048
Ending NBV						0	0	0	0	0	0	0	200,527	192,479	184,432	176,384
Average NBV						0	0	0	0	0	0	0	16,739	196,503	188,455	180,408
Return on rate base %						8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Return on rate base \$000						0	0	0	0	0	0	0	1,339	15,720	15,076	14,433
Insurance						0	0	0	0	0	0	0	21	251	251	251
Fixed Charges						0	0	0	0	0	0	0	2,031	24,020	23,376	22,732

NEWFOUNDLAND AND LABRADOR HYDRO GENERATION EXPANSION AT
2010 ISLAND ISOLATED SCENARIO (\$000)

WACC 8.00%

	InSvcyr	InSvcMo	InSvcCost	SerLife	Ins Rate	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067
TOTAL FUEL EXPENSE						2,141,877	2,213,411	2,285,491	2,360,552	2,438,424	2,519,240	2,601,517	2,681,919	2,767,098	2,858,785	2,951,437
No. 2 Fuel Expense						2,141,877	2,213,411	2,285,491	2,360,552	2,438,424	2,519,240	2,601,517	2,681,919	2,767,098	2,858,785	2,951,437
\$/litre						2.480	2.530	2.580	2.630	2.685	2.740	2.795	2.850	2.905	2.965	3.025
\$/bbl			158.97			394.20	402.20	410.10	418.10	426.80	435.60	444.30	453.10	461.80	471.30	480.90
Barrels (000's)						5,433.5	5,503.3	5,573.0	5,645.9	5,713.3	5,783.4	5,855.3	5,919.0	5,992.0	6,065.7	6,137.3
No. 6 Fuel Expense						0	0	0	0	0	0	0	0	0	0	0
\$/bbl																
Barrels (000's)						0	0	0	0	0	0	0	0	0	0	0
TOTAL POWER PURCHASE EXPENSE						43,264	43,629	44,001	44,381	44,768	45,163	45,566	45,977	46,396	46,823	47,259
Power purchase agreements - Other						43,264	43,629	44,001	44,381	44,768	45,163	45,566	45,977	46,396	46,823	47,259
Muskrat Falls power purchase cost						0	0	0	0	0	0	0	0	0	0	0
TOTAL OPERATING COSTS						141,743	146,806	152,043	157,457	163,057	168,846	174,638	178,900	187,435	193,962	200,364
Totals by component						2,676,445	2,741,750	2,807,781	2,876,979	2,949,182	3,024,523	3,110,872	3,289,508	3,392,693	3,482,540	3,628,247
Totals per Strategist (Exhibit 14)						2,676,452	2,741,744	2,807,768	2,876,985	2,949,169	3,024,520	3,110,883	3,289,495	3,392,695	3,482,545	3,628,249
Difference						(7)	7	13	(6)	12	3	(11)	13	(2)	(5)	(2)
Total fuel above						2,141,877	2,213,411	2,285,491	2,360,552	2,438,424	2,519,240	2,601,517	2,681,919	2,767,098	2,858,785	2,951,437
Plus fuel component of CBPP PPA						0	0	0	0	0	0	0	0	0	0	0
						2,141,877	2,213,411	2,285,491	2,360,552	2,438,424	2,519,240	2,601,517	2,681,919	2,767,098	2,858,785	2,951,437
Fuel per Exhibit 14						2,141,883	2,213,404	2,285,477	2,360,558	2,438,412	2,519,237	2,601,528	2,681,905	2,767,099	2,858,790	2,951,439
						(6)	7	14	(6)	12	3	(11)	14	(1)	(5)	(2)

NEWFOUNDLAND AND LABRADOR HYDRO GENERATION EXPANSION ANALYSIS

2010 INFEEED SCENARIO (\$'000)

WACC	8.00%	InSvcyr	InSvcMo	InSvcCost	SerLife	Ins Rate	CPW	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	
TOTAL FIXED CHARGES							1,749,508	0	0	0	0	754	8,924	8,685	261,778	257,707	253,378	249,050	244,721	240,393	236,064	231,735	
Return on Rate Base:																							
Beginning NBV								0	0	0	0	74,751	74,502	71,512	2,624,897	2,570,833	2,516,726	2,462,619	2,408,512	2,354,405	2,300,298	2,246,191	
Depreciation								0	0	0	0	249	2,990	2,990	54,063	54,107	54,107	54,107	54,107	54,107	54,107	54,107	
Ending NBV								0	0	0	0	74,502	71,512	68,522	2,570,833	2,516,726	2,462,619	2,408,512	2,354,405	2,300,298	2,246,191	2,192,084	
Average NBV								0	0	0	0	6,219	73,007	70,017	2,595,252	2,543,780	2,489,673	2,435,566	2,381,459	2,327,351	2,273,244	2,219,137	
Return on rate base %								0	0	0	0	498	5,841	5,601	207,620	203,502	199,174	194,845	190,517	186,188	181,860	177,531	
Return on rate base \$'000								0	0	0	0	498	5,841	5,601	207,620	203,502	199,174	194,845	190,517	186,188	181,860	177,531	
Insurance								0	0	0	0	8	93	93	94	97	97	97	97	97	97	97	
Total Fixed Charges - Detail Calculations								0	0	0	0	754	8,924	8,685	261,778	257,707	253,378	249,050	244,721	240,393	236,064	231,735	
Per Exhibit 14 - Infeed Scenario								0	0	0	0	755	8,924	8,685	261,778	257,707	253,378	249,050	244,721	240,393	236,064	231,736	
Difference between Exhibit 14 and detail calculations								0	0	0	0	0	(0)	(0)	0	(0)	0	0	0	0	0	0	
50 MW CT		2014	12	74,751	25	0.125%		0	0	0	0	754	8,924	8,685	8,446	8,206	7,967	7,728	7,489	7,250	7,010	6,771	
Return on Rate Base:																							
Beginning NBV								0	0	0	0	74,751	74,502	71,512	68,522	65,532	62,542	59,552	56,562	53,572	50,582	47,591	
Depreciation								0	0	0	0	249	2,990	2,990	2,990	2,990	2,990	2,990	2,990	2,990	2,990	2,990	
Ending NBV							0	0	0	0	0	74,502	71,512	68,522	65,532	62,542	59,552	56,562	53,572	50,582	47,591	44,601	
Average NBV								0	0	0	0	6,219	73,007	70,017	67,027	64,037	61,047	58,057	55,067	52,077	49,086	46,096	
Return on rate base %								8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	
Return on rate base \$'000								0	0	0	0	498	5,841	5,601	5,362	5,123	4,884	4,645	4,405	4,166	3,927	3,688	
Insurance								0	0	0	0	8	93	93	93	93	93	93	93	93	93	93	
Fixed Charges								0	0	0	0	754	8,924	8,685	8,446	8,206	7,967	7,728	7,489	7,250	7,010	6,771	
INFEEED		2017	1	2,553,235	50	0.000%		0	0	0	0	0	0	0	253,281	249,196	245,111	241,025	236,940	232,855	228,770	224,685	
Return on Rate Base:																							
Beginning NBV								0	0	0	0	0	0	0	2,553,235	2,502,170	2,451,106	2,400,041	2,348,976	2,297,912	2,246,847	2,195,782	
Depreciation								0	0	0	0	0	0	0	51,065	51,065	51,065	51,065	51,065	51,065	51,065	51,065	
Ending NBV							0	0	0	0	0	0	0	0	2,502,170	2,451,106	2,400,041	2,348,976	2,297,912	2,246,847	2,195,782	2,144,717	
Average NBV								0	0	0	0	0	0	0	2,527,703	2,476,638	2,425,573	2,374,509	2,323,444	2,272,379	2,221,314	2,170,250	
Return on rate base %								8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	
Return on rate base \$'000								0	0	0	0	0	0	0	202,216	198,131	194,046	189,961	185,876	181,790	177,705	173,620	
Insurance								0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Fixed Charges								0	0	0	0	0	0	0	253,281	249,196	245,111	241,025	236,940	232,855	228,770	224,685	

NEWFOUNDLAND AND LABRADOR HYDRO GENERATION EXPANSION ANALYSIS

2010 INFEEED SCENARIO (\$'000)

WACC	8.00%	InSvcyr	InSvcMo	InSvcCost	SerLife	Ins Rate	CPW	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
TOTAL FUEL EXPENSE							1,169,576	134,330	126,674	144,920	214,914	267,855	298,484	313,564	463	515	475	520	597	689	673	735
No. 2 Fuel Expense								1,368	1,078	1,292	2,745	4,617	5,617	6,041	116	128	117	126	545	689	673	735
\$/litre								0.674	0.700	0.760	0.815	0.850	0.905	0.945	0.990	1.030	1.065	1.100	1.155	1.195	1.235	1.275
\$/bbl			158.97					107.10	111.30	120.80	129.60	135.10	143.90	150.20	157.40	163.70	169.30	174.90	183.60	190.00	196.30	202.70
Barrels (000's)								12.8	9.7	10.7	21.2	34.2	39.0	40.2	0.7	0.8	0.7	0.7	3.0	3.6	3.4	3.6
No. 6 Fuel Expense								132,962	125,597	143,629	212,169	263,238	292,867	307,523	347	387	358	394	52	0	0	0
\$/bbl								81.30	83.20	90.90	98.80	102.60	106.80	111.10	116.30	121.10	124.90	129.20	132.80			
Barrels (000's)								1635.501	1509.535	1580.116	2147.45	2565.733	2742.27	2768.048	2.981467	3.195594	2.862705	3.048739	0.3938263	0	0	0
TOTAL POWER PURCHASE EXPENSE							3,358,446	52,937	53,267	54,036	54,757	55,192	55,539	55,892	222,503	232,782	243,446	253,957	267,772	282,214	295,187	306,745
Power purchase agreements - Other								52,937	53,267	54,036	54,757	55,192	55,539	55,892	56,348	56,803	57,203	57,556	57,935	58,333	49,666	49,054
Power purchases - Labrador								0	0	0	0	0	0	0	166,155	175,978	186,242	196,401	209,837	223,881	245,521	257,690
TOTAL OPERATING COSTS							374,281	21,574	22,072	22,751	23,882	24,989	26,469	27,237	38,962	40,012	46,589	42,198	29,707	17,668	17,411	17,853
Totals by component							6,651,812	208,840	202,014	221,707	293,552	348,791	389,416	405,378	523,705	531,015	543,888	545,724	542,798	540,963	549,335	557,068
Totals per Strategist (Exhibit 14)							6,651,813	208,840	202,014	221,707	293,552	348,791	389,416	405,378	523,706	531,015	543,888	545,724	542,798	540,964	549,335	557,068
Difference							(0)	0	0	(0)	0	0	(0)	0	(0)	(0)	(0)	0	(0)	(0)	(0)	(0)
Total fuel above								134,330	126,674	144,920	214,914	267,855	298,484	313,564	463	515	475	520	597	689	673	735
Plus fuel component of CBPP PPA								4,460	4,564	5,000	5,420	5,629	5,755	5,886	6,117	6,340	6,505	6,617	6,752	6,900	624	0
Plus Muskrat Falls Power Purchases								0	0	0	0	0	0	0	166,155	175,978	186,242	196,401	209,837	223,881	245,521	257,690
								138,790	131,239	149,921	220,334	273,484	304,239	319,450	172,735	182,833	193,222	203,538	217,186	231,469	246,817	258,426
Fuel per Exhibit 14								138,790	131,239	149,921	220,334	273,484	304,239	319,450	172,734	182,834	193,222	203,538	217,186	231,469	246,818	258,426
								0	0	(0)	0	0	(0)	0	1	(0)	0	0	0	(0)	(0)	0

NEWFOUNDLAND AND LABRADOR HYDRO GENERATION EXPANSION ANA
2010 INFEEED SCENARIO (\$000)

WACC	8.00%	InSvcyr	InSvcMo	InSvcCost	SerLife	Ins Rate	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
SYNC COND	2017	11	3,140	60	0.125%		275	271	267	263	259	254	250	246	242	238	233	229	225	221	217	213
Return on Rate Base:																						
Beginning NBV							2,765	2,713	2,660	2,608	2,556	2,503	2,451	2,399	2,346	2,294	2,242	2,189	2,137	2,085	2,032	1,980
Depreciation							52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52
Ending NBV							2,713	2,660	2,608	2,556	2,503	2,451	2,399	2,346	2,294	2,242	2,189	2,137	2,085	2,032	1,980	1,928
Average NBV							2,739	2,686	2,634	2,582	2,529	2,477	2,425	2,372	2,320	2,268	2,215	2,163	2,111	2,058	2,006	1,954
Return on rate base %							8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Return on rate base \$000							219	215	211	207	202	198	194	190	186	181	177	173	169	165	160	156
Insurance							4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Fixed Charges							275	271	267	263	259	254	250	246	242	238	233	229	225	221	217	213
HRD DCL1	2025	12	15,451	60	0.125%		126	1,501	1,480	1,460	1,439	1,418	1,398	1,377	1,357	1,336	1,315	1,295	1,274	1,254	1,233	1,212
Return on Rate Base:																						
Beginning NBV							15,451	15,430	15,172	14,915	14,657	14,399	14,142	13,884	13,627	13,369	13,112	12,854	12,597	12,339	12,082	11,824
Depreciation							21	258	258	258	258	258	258	258	258	258	258	258	258	258	258	258
Ending NBV							15,430	15,172	14,915	14,657	14,399	14,142	13,884	13,627	13,369	13,112	12,854	12,597	12,339	12,082	11,824	11,567
Average NBV							1,287	15,301	15,043	14,786	14,528	14,271	14,013	13,756	13,498	13,241	12,983	12,726	12,468	12,211	11,953	11,696
Return on rate base %							8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Return on rate base \$000							103	1,224	1,203	1,183	1,162	1,142	1,121	1,100	1,080	1,059	1,039	1,018	997	977	956	936
Insurance							2	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19
Fixed Charges							126	1,501	1,480	1,460	1,439	1,418	1,398	1,377	1,357	1,336	1,315	1,295	1,274	1,254	1,233	1,212
19																						
HRD DCL2	2029	12	11,881	60	0.125%		0	0	0	0	97	1,154	1,138	1,122	1,107	1,091	1,075	1,059	1,043	1,027	1,012	996
Return on Rate Base:																						
Beginning NBV							0	0	0	0	11,881	11,864	11,666	11,468	11,270	11,072	10,874	10,676	10,478	10,280	10,082	9,884
Depreciation							0	0	0	0	17	198	198	198	198	198	198	198	198	198	198	198
Ending NBV							0	0	0	0	11,864	11,666	11,468	11,270	11,072	10,874	10,676	10,478	10,280	10,082	9,884	9,686
Average NBV							0	0	0	0	989	11,765	11,567	11,369	11,171	10,973	10,775	10,577	10,379	10,181	9,983	9,785
Return on rate base %							8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Return on rate base \$000							0	0	0	0	79	941	925	910	894	878	862	846	830	815	799	783
Insurance							0	0	0	0	1	15	15	15	15	15	15	15	15	15	15	15
Fixed Charges							0	0	0	0	97	1,154	1,138	1,122	1,107	1,091	1,075	1,059	1,043	1,027	1,012	996

NEWFOUNDLAND AND LABRADOR HYDRO GENERATION EXPANSION ANA
 2010 INFEEED SCENARIO (\$000)

WACC	8.00%	InSvcyr	InSvcMo	InSvcCost	SerLife	Ins Rate	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
GT50		2063	12	197,253	25	0.125%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Return on Rate Base:																						
Beginning NBV							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Depreciation							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ending NBV							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Average NBV							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Return on rate base %							8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Return on rate base \$000							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Insurance							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fixed Charges							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

GT50		2066	12	209,327	25	0.125%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Return on Rate Base:																						
Beginning NBV							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Depreciation							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ending NBV							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Average NBV							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Return on rate base %							8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Return on rate base \$000							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Insurance							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fixed Charges							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

0

NEWFOUNDLAND AND LABRADOR HYDRO GENERATION EXPANSION ANA
2010 INFEEED SCENARIO (\$000)

WACC	8.00%	InSvcyr	InSvcMo	InSvcCost	SerLife	Ins Rate	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
TOTAL FUEL EXPENSE							701	767	862	1,060	1,732	1,945	2,039	2,310	2,578	2,825	3,075	3,318	3,237	4,411	4,802	5,019
No. 2 Fuel Expense							701	767	862	1,060	1,732	1,945	2,039	2,310	2,578	2,825	3,075	3,318	3,237	4,411	4,802	5,019
\$/litre							1.315	1.340	1.365	1.395	1.425	1.450	1.480	1.510	1.540	1.570	1.600	1.635	1.665	1.700	1.735	1.770
\$/bbl			158.97				209.00	213.00	217.00	221.80	226.50	230.50	235.30	240.00	244.80	249.60	254.40	259.90	264.70	270.20	275.80	281.40
Barrels (000's)							3.4	3.6	4.0	4.8	7.6	8.4	8.7	9.6	10.5	11.3	12.1	12.8	12.2	16.3	17.4	17.8
No. 6 Fuel Expense							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
\$/bbl																						
Barrels (000's)							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL POWER PURCHASE EXPENSE							318,399	333,058	348,936	366,529	387,179	403,613	420,632	438,129	456,150	474,746	492,889	510,484	511,670	530,553	550,524	570,050
Power purchase agreements - Other							49,318	49,586	49,860	46,302	35,479	35,689	35,902	36,120	36,342	36,568	36,799	37,034	37,275	37,520	37,770	38,025
Power purchases - Labrador							269,081	283,472	299,076	320,228	351,699	367,924	384,730	402,009	419,808	438,178	456,090	473,450	474,395	493,033	512,754	532,025
TOTAL OPERATING COSTS							17,559	25,704	19,650	20,147	20,665	21,187	29,118	22,273	22,834	23,412	24,003	33,048	26,382	30,225	30,906	30,597
Totals by component							564,191	584,109	589,678	603,617	621,204	635,081	655,760	662,319	676,804	691,860	706,478	730,262	737,715	795,687	810,915	822,083
Totals per Strategist (Exhibit 14)							564,191	584,109	589,678	603,617	621,204	635,081	655,760	662,319	676,804	691,860	706,478	730,262	737,715	795,687	810,915	822,083
Difference							(0)	(0)	0	(0)	(0)	(0)	(0)	(0)	(0)	0	(0)	(0)	0	(0)	(0)	(0)
Total fuel above							701	767	862	1,060	1,732	1,945	2,039	2,310	2,578	2,825	3,075	3,318	3,237	4,411	4,802	5,019
Plus fuel component of CBPP PPA							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Plus Muskrat Falls Power Purchases							269,081	283,472	299,076	320,228	351,699	367,924	384,730	402,009	419,808	438,178	456,090	473,450	474,395	493,033	512,754	532,025
							269,782	284,240	299,938	321,288	353,431	369,869	386,768	404,319	422,386	441,003	459,164	476,767	477,632	497,444	517,556	537,044
Fuel per Exhibit 14							269,782	284,240	299,938	321,288	353,431	369,869	386,769	404,319	422,386	441,003	459,164	476,767	477,632	497,444	517,557	537,044
							(0)	(0)	0	0	0	(0)	(0)	0	0	0	(0)	0	0	0	(0)	0

NEWFOUNDLAND AND LABRADOR HYDRO GENERATION EXPANSION ANA
2010 INFEED SCENARIO (\$000)

WACC	8.00%	InSvcyr	InSvcMo	InSvcCost	SerLife	Ins Rate	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	
TOTAL FIXED CHARGES							211,088	205,759	200,430	195,100	189,771	185,864	195,931	190,151	184,371	180,130	191,015	184,747	178,479	173,877	185,648	178,852	
Return on Rate Base:																							
Beginning NBV							1,830,972	1,764,358	1,697,744	1,631,130	1,564,516	1,638,773	1,571,689	1,499,440	1,427,191	1,507,425	1,434,668	1,356,320	1,277,971	1,364,676	1,285,778	1,200,827	
Depreciation							66,614	66,614	66,614	66,614	66,614	67,084	72,249	72,249	72,249	72,757	78,348	78,348	78,348	78,348	78,898	84,950	84,950
Ending NBV							1,764,358	1,697,744	1,631,130	1,564,516	1,497,902	1,571,689	1,499,440	1,427,191	1,354,942	1,434,668	1,356,320	1,277,971	1,199,623	1,285,778	1,200,827	1,115,877	
Average NBV							1,797,665	1,731,051	1,664,437	1,597,823	1,531,209	1,476,314	1,535,565	1,463,316	1,391,067	1,331,503	1,395,494	1,317,145	1,238,797	1,174,180	1,243,302	1,158,352	
Return on rate base %																							
Return on rate base \$000							143,813	138,484	133,155	127,826	122,497	118,105	122,845	117,065	111,285	106,520	111,640	105,372	99,104	93,934	99,464	92,668	
Insurance							661	661	661	661	661	675	837	837	837	852	1,027	1,027	1,027	1,044	1,234	1,234	
Total Fixed Charges - Detail Calculations							211,088	205,759	200,430	195,100	189,771	185,864	195,931	190,151	184,371	180,130	191,015	184,747	178,479	173,877	185,648	178,852	
Per Exhibit 14 - Infeed Scenario							211,088	205,759	200,430	195,101	189,772	185,864	195,931	190,151	184,371	180,130	191,015	184,747	178,480	173,878	185,648	178,852	
Difference between Exhibit 14 and detail calculations							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
50 MW CT	2014	12	74,751	25	0.125%		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Return on Rate Base:																							
Beginning NBV							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Depreciation							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Ending NBV							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Average NBV							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Return on rate base %							8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	
Return on rate base \$000							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Insurance							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Fixed Charges							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
INFEED	2017	1	2,553,235	50	0.000%		155,237	151,152	147,066	142,981	138,896	134,811	130,726	126,640	122,555	118,470	114,385	110,300	106,215	102,129	98,044	93,959	
Return on Rate Base:																							
Beginning NBV							1,327,682	1,276,618	1,225,553	1,174,488	1,123,423	1,072,359	1,021,294	970,229	919,165	868,100	817,035	765,971	714,906	663,841	612,776	561,712	
Depreciation							51,065	51,065	51,065	51,065	51,065	51,065	51,065	51,065	51,065	51,065	51,065	51,065	51,065	51,065	51,065	51,065	
Ending NBV							1,276,618	1,225,553	1,174,488	1,123,423	1,072,359	1,021,294	970,229	919,165	868,100	817,035	765,971	714,906	663,841	612,776	561,712	510,647	
Average NBV							1,302,150	1,251,085	1,200,020	1,148,956	1,097,891	1,046,826	995,762	944,697	893,632	842,568	791,503	740,438	689,373	638,309	587,244	536,179	
Return on rate base %							8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	
Return on rate base \$000							104,172	100,087	96,002	91,916	87,831	83,746	79,661	75,576	71,491	67,405	63,320	59,235	55,150	51,065	46,980	42,894	
Insurance							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Fixed Charges							155,237	151,152	147,066	142,981	138,896	134,811	130,726	126,640	122,555	118,470	114,385	110,300	106,215	102,129	98,044	93,959	

NEWFOUNDLAND AND LABRADOR HYDRO GENERATION EXPANSION ANA
2010 INFEED SCENARIO (\$000)

WACC	8.00%	InSvcyr	InSvcMo	InSvcCost	SerLife	Ins Rate	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056
SYNC COND	2017	11	3,140	60	0.125%		208	204	200	196	192	187	183	179	175	171	167	162	158	154	150	146
Return on Rate Base:																						
Beginning NBV							1,928	1,875	1,823	1,771	1,718	1,666	1,614	1,561	1,509	1,457	1,404	1,352	1,300	1,247	1,195	1,143
Depreciation							52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52
Ending NBV							1,875	1,823	1,771	1,718	1,666	1,614	1,561	1,509	1,457	1,404	1,352	1,300	1,247	1,195	1,143	1,090
Average NBV							1,901	1,849	1,797	1,744	1,692	1,640	1,587	1,535	1,483	1,430	1,378	1,326	1,273	1,221	1,169	1,116
Return on rate base %							8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Return on rate base \$000							152	148	144	140	135	131	127	123	119	114	110	106	102	98	94	89
Insurance							4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Fixed Charges							208	204	200	196	192	187	183	179	175	171	167	162	158	154	150	146
HRD DCL1	2025	12	15,451	60	0.125%		1,192	1,171	1,151	1,130	1,109	1,089	1,068	1,048	1,027	1,006	986	965	945	924	903	883
Return on Rate Base:																						
Beginning NBV							11,567	11,309	11,052	10,794	10,537	10,279	10,022	9,764	9,507	9,249	8,992	8,734	8,477	8,219	7,962	7,704
Depreciation							258	258	258	258	258	258	258	258	258	258	258	258	258	258	258	258
Ending NBV							11,309	11,052	10,794	10,537	10,279	10,022	9,764	9,507	9,249	8,992	8,734	8,477	8,219	7,962	7,704	7,447
Average NBV							11,438	11,181	10,923	10,665	10,408	10,150	9,893	9,635	9,378	9,120	8,863	8,605	8,348	8,090	7,833	7,575
Return on rate base %							8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Return on rate base \$000							915	894	874	853	833	812	791	771	750	730	709	688	668	647	627	606
Insurance							19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19
Fixed Charges							1,192	1,171	1,151	1,130	1,109	1,089	1,068	1,048	1,027	1,006	986	965	945	924	903	883
HRD DCL2	2029	12	11,881	60	0.125%		980	964	948	932	916	901	885	869	853	837	821	806	790	774	758	742
Return on Rate Base:																						
Beginning NBV							9,686	9,488	9,290	9,092	8,894	8,696	8,498	8,300	8,102	7,904	7,706	7,508	7,310	7,112	6,914	6,716
Depreciation							198	198	198	198	198	198	198	198	198	198	198	198	198	198	198	198
Ending NBV							9,488	9,290	9,092	8,894	8,696	8,498	8,300	8,102	7,904	7,706	7,508	7,310	7,112	6,914	6,716	6,518
Average NBV							9,587	9,389	9,191	8,993	8,795	8,597	8,399	8,201	8,003	7,805	7,607	7,409	7,211	7,013	6,815	6,617
Return on rate base %							8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Return on rate base \$000							767	751	735	719	704	688	672	656	640	624	609	593	577	561	545	529
Insurance							15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
Fixed Charges							980	964	948	932	916	901	885	869	853	837	821	806	790	774	758	742

NEWFOUNDLAND AND LABRADOR HYDRO GENERATION EXPANSION ANA
2010 INFEEED SCENARIO (\$000)

WACC	8.00%	InSvcyr	InSvcMo	InSvcCost	SerLife	Ins Rate	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056
PORTLAND	2036	12	155,671	60	0.100%	14,253	14,045	13,837	13,630	13,422	13,215	13,007	12,800	12,592	12,384	12,177	11,969	11,762	11,554	11,347	11,139	
Return on Rate Base:																						
Beginning NBV						145,077	142,482	139,888	137,293	134,699	132,104	129,510	126,915	124,321	121,726	119,132	116,537	113,943	111,348	108,753	106,159	
Depreciation						2,595	2,595	2,595	2,595	2,595	2,595	2,595	2,595	2,595	2,595	2,595	2,595	2,595	2,595	2,595	2,595	
Ending NBV						142,482	139,888	137,293	134,699	132,104	129,510	126,915	124,321	121,726	119,132	116,537	113,943	111,348	108,753	106,159	103,564	
Average NBV						143,779	141,185	138,590	135,996	133,401	130,807	128,212	125,618	123,023	120,429	117,834	115,240	112,645	110,051	107,456	104,862	
Return on rate base %						8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	
Return on rate base \$000						11,502	11,295	11,087	10,880	10,672	10,465	10,257	10,049	9,842	9,634	9,427	9,219	9,012	8,804	8,596	8,389	
Insurance						156	156	156	156	156	156	156	156	156	156	156	156	156	156	156	156	
Fixed Charges						14,253	14,045	13,837	13,630	13,422	13,215	13,007	12,800	12,592	12,384	12,177	11,969	11,762	11,554	11,347	11,139	
CCCT 170	2037	12	373,411	30	0.125%	39,219	38,223	37,227	36,231	35,235	34,240	33,244	32,248	31,252	30,257	29,261	28,265	27,269	26,274	25,278	24,282	
Return on Rate Base:																						
Beginning NBV						335,033	322,586	310,139	297,692	285,245	272,797	260,350	247,903	235,456	223,009	210,562	198,115	185,668	173,221	160,774	148,327	
Depreciation						12,447	12,447	12,447	12,447	12,447	12,447	12,447	12,447	12,447	12,447	12,447	12,447	12,447	12,447	12,447	12,447	
Ending NBV						322,586	310,139	297,692	285,245	272,797	260,350	247,903	235,456	223,009	210,562	198,115	185,668	173,221	160,774	148,327	135,880	
Average NBV						328,809	316,362	303,915	291,468	279,021	266,574	254,127	241,680	229,233	216,786	204,339	191,892	179,445	166,998	154,551	142,104	
Return on rate base %						8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	
Return on rate base \$000						26,305	25,309	24,313	23,317	22,322	21,326	20,330	19,334	18,339	17,343	16,347	15,351	14,356	13,360	12,364	11,368	
Insurance						467	467	467	467	467	467	467	467	467	467	467	467	467	467	467	467	
Fixed Charges						39,219	38,223	37,227	36,231	35,235	34,240	33,244	32,248	31,252	30,257	29,261	28,265	27,269	26,274	25,278	24,282	
GT50	2046	12	140,871	25	0.125%	0	0	0	0	0	1,422	16,818	16,367	15,916	15,465	15,015	14,564	14,113	13,662	13,211	12,761	
Return on Rate Base:																						
Beginning NBV						0	0	0	0	0	140,871	140,401	134,767	129,132	123,497	117,862	112,227	106,592	100,958	95,323	89,688	
Depreciation						0	0	0	0	0	470	5,635	5,635	5,635	5,635	5,635	5,635	5,635	5,635	5,635	5,635	
Ending NBV						0	0	0	0	0	140,401	134,767	129,132	123,497	117,862	112,227	106,592	100,958	95,323	89,688	84,053	
Average NBV						0	0	0	0	0	11,720	137,584	131,949	126,314	120,679	115,045	109,410	103,775	98,140	92,505	86,870	
Return on rate base %						8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	
Return on rate base \$000						0	0	0	0	0	938	11,007	10,556	10,105	9,654	9,204	8,753	8,302	7,851	7,400	6,950	
Insurance						0	0	0	0	0	15	176	176	176	176	176	176	176	176	176	176	
Fixed Charges						0	0	0	0	0	1,422	16,818	16,367	15,916	15,465	15,015	14,564	14,113	13,662	13,211	12,761	

NEWFOUNDLAND AND LABRADOR HYDRO GENERATION EXPANSION ANA
2010 INFEEED SCENARIO (\$'000)

WACC	8.00%	InSvcyr	InSvcMo	InSvcCost	SerLife	Ins Rate	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056
TOTAL FUEL EXPENSE							5,448	5,884	6,347	6,725	7,246	7,716	8,567	9,103	9,745	10,346	11,071	11,833	12,663	15,560	18,603	21,686
No. 2 Fuel Expense							5,448	5,884	6,347	6,725	7,246	7,716	8,567	9,103	9,745	10,346	11,071	11,833	12,663	15,560	18,603	21,686
\$/litre							1.805	1.840	1.875	1.915	1.955	1.995	2.035	2.075	2.115	2.155	2.200	2.245	2.290	2.335	2.380	2.430
\$/bbl			158.97				286.90	292.50	298.10	304.40	310.80	317.10	323.50	329.90	336.20	342.60	349.70	356.90	364.00	371.20	378.30	386.30
Barrels (000's)							19.0	20.1	21.3	22.1	23.3	24.3	26.5	27.6	29.0	30.2	31.7	33.2	34.8	41.9	49.2	56.1
No. 6 Fuel Expense							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
\$/bbl																						
Barrels (000's)							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL POWER PURCHASE EXPENSE							590,010	610,637	631,776	653,634	676,030	699,095	722,755	747,139	772,239	796,663	821,753	847,541	874,012	900,489	927,714	955,651
Power purchase agreements - Other							38,285	38,550	38,821	39,097	39,378	39,665	39,958	40,257	40,562	40,872	41,189	41,513	41,843	42,179	42,522	42,872
Power purchases - Labrador							551,725	572,087	592,955	614,537	636,652	659,430	682,797	706,882	731,678	755,791	780,563	806,029	832,169	858,310	885,192	912,779
TOTAL OPERATING COSTS							40,853	32,193	33,474	33,872	34,742	46,468	38,032	39,018	40,027	41,199	55,883	44,906	46,075	47,495	50,472	65,572
Totals by component							847,399	854,473	872,026	889,331	907,789	939,143	965,285	985,410	1,006,382	1,028,339	1,079,722	1,089,027	1,111,230	1,137,421	1,182,437	1,221,761
Totals per Strategist (Exhibit 14)							847,399	854,473	872,026	889,332	907,789	939,143	965,285	985,410	1,006,382	1,028,339	1,079,722	1,089,028	1,111,230	1,137,421	1,182,438	1,221,761
Difference							(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Total fuel above							5,448	5,884	6,347	6,725	7,246	7,716	8,567	9,103	9,745	10,346	11,071	11,833	12,663	15,560	18,603	21,686
Plus fuel component of CBPP PPA							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Plus Muskrat Falls Power Purchases							551,725	572,087	592,955	614,537	636,652	659,430	682,797	706,882	731,678	755,791	780,563	806,029	832,169	858,310	885,192	912,779
							557,173	577,971	599,302	621,262	643,898	667,146	691,364	715,985	741,423	766,137	791,635	817,862	844,832	873,870	903,795	934,465
Fuel per Exhibit 14							557,173	577,971	599,302	621,263	643,898	667,146	691,364	715,985	741,423	766,137	791,635	817,862	844,832	873,870	903,795	934,465
							0	(0)	(0)	(0)	0	(0)	0	0	(0)	0	0	0	0	0	0	(0)

NEWFOUNDLAND AND LABRADOR HYDRO GENERATION EXPANSION ANA
2010 INFEEED SCENARIO (\$'000)

WACC	8.00%	InSvcyr	InSvcMo	InSvcCost	SerLife	Ins Rate	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067
TOTAL FIXED CHARGES							172,056	167,063	179,793	172,425	165,057	157,690	152,313	166,503	158,504	152,618	117,439
Return on Rate Base:																	
Beginning NBV							1,115,877	1,209,584	1,124,039	1,031,942	939,845	847,748	952,905	860,150	760,164	869,504	768,819
Depreciation							84,950	85,546	92,097	92,097	92,097	92,097	92,754	99,987	99,987	100,685	56,258
Ending NBV							1,030,926	1,124,039	1,031,942	939,845	847,748	755,652	860,150	760,164	660,177	768,819	712,561
Average NBV							1,073,402	1,003,315	1,077,990	985,893	893,797	801,700	726,014	810,157	710,170	627,598	740,690
Return on rate base %																	
Return on rate base \$'000							85,872	80,265	86,239	78,871	71,504	64,136	58,081	64,813	56,814	50,208	59,255
Insurance							1,234	1,252	1,457	1,457	1,457	1,457	1,477	1,703	1,703	1,725	1,926
Total Fixed Charges - Detail Calculations							172,056	167,063	179,793	172,425	165,057	157,690	152,313	166,503	158,504	152,618	117,439
Per Exhibit 14 - Infeed Scenario							172,056	167,063	179,793	172,425	165,058	157,690	152,313	166,503	158,504	152,618	117,440
Difference between Exhibit 14 and detail calculations							0	0	0	0	0	0	0	0	0	0	0
50 MW CT	2014	12	74,751	25	0.125%		0	0	0	0	0	0	0	0	0	0	0
Return on Rate Base:																	
Beginning NBV							0	0	0	0	0	0	0	0	0	0	0
Depreciation							0	0	0	0	0	0	0	0	0	0	0
Ending NBV							0	0	0	0	0	0	0	0	0	0	0
Average NBV							0	0	0	0	0	0	0	0	0	0	0
Return on rate base %							8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Return on rate base \$'000							0	0	0	0	0	0	0	0	0	0	0
Insurance							0	0	0	0	0	0	0	0	0	0	0
Fixed Charges							0	0	0	0	0	0	0	0	0	0	0
INFEEED	2017	1	2,553,235	50	0.000%		89,874	85,789	81,704	77,618	73,533	69,448	65,363	61,278	57,192	53,107	0
Return on Rate Base:																	
Beginning NBV							510,647	459,582	408,518	357,453	306,388	255,324	204,259	153,194	102,129	51,065	0
Depreciation							51,065	51,065	51,065	51,065	51,065	51,065	51,065	51,065	51,065	51,065	0
Ending NBV							459,582	408,518	357,453	306,388	255,324	204,259	153,194	102,129	51,065	0	0
Average NBV							485,115	434,050	382,985	331,921	280,856	229,791	178,726	127,662	76,597	25,532	0
Return on rate base %							8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Return on rate base \$'000							38,809	34,724	30,639	26,554	22,468	18,383	14,298	10,213	6,128	2,043	0
Insurance							0	0	0	0	0	0	0	0	0	0	0
Fixed Charges							89,874	85,789	81,704	77,618	73,533	69,448	65,363	61,278	57,192	53,107	0

NEWFOUNDLAND AND LABRADOR HYDRO GENERATION EXPANSION ANA
2010 INFEEED SCENARIO (\$000)

WACC	8.00%	InSvcyr	InSvcMo	InSvcCost	SerLife	Ins Rate	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067
SYNC COND	2017	11	3,140	60	0.125%		141	137	133	129	125	120	116	112	108	104	100
Return on Rate Base:																	
Beginning NBV							1,090	1,038	986	933	881	829	776	724	672	619	567
Depreciation							52	52	52	52	52	52	52	52	52	52	52
Ending NBV							1,038	986	933	881	829	776	724	672	619	567	515
Average NBV							1,064	1,012	959	907	855	802	750	698	645	593	541
Return on rate base %							8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Return on rate base \$000							85	81	77	73	68	64	60	56	52	47	43
Insurance							4	4	4	4	4	4	4	4	4	4	4
Fixed Charges							141	137	133	129	125	120	116	112	108	104	100
HRD DCL1	2025	12	15,451	60	0.125%		862	842	821	800	780	759	739	718	697	677	656
Return on Rate Base:																	
Beginning NBV							7,447	7,189	6,931	6,674	6,416	6,159	5,901	5,644	5,386	5,129	4,871
Depreciation							258	258	258	258	258	258	258	258	258	258	258
Ending NBV							7,189	6,931	6,674	6,416	6,159	5,901	5,644	5,386	5,129	4,871	4,614
Average NBV							7,318	7,060	6,803	6,545	6,288	6,030	5,773	5,515	5,258	5,000	4,743
Return on rate base %							8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Return on rate base \$000							585	565	544	524	503	482	462	441	421	400	379
Insurance							19	19	19	19	19	19	19	19	19	19	19
Fixed Charges							862	842	821	800	780	759	739	718	697	677	656
HRD DCL2	2029	12	11,881	60	0.125%		726	711	695	679	663	647	631	616	600	584	568
Return on Rate Base:																	
Beginning NBV							6,518	6,320	6,122	5,924	5,726	5,528	5,330	5,132	4,934	4,736	4,538
Depreciation							198	198	198	198	198	198	198	198	198	198	198
Ending NBV							6,320	6,122	5,924	5,726	5,528	5,330	5,132	4,934	4,736	4,538	4,340
Average NBV							6,419	6,221	6,023	5,825	5,627	5,429	5,231	5,033	4,835	4,637	4,439
Return on rate base %							8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Return on rate base \$000							514	498	482	466	450	434	418	403	387	371	355
Insurance							15	15	15	15	15	15	15	15	15	15	15
Fixed Charges							726	711	695	679	663	647	631	616	600	584	568

NEWFOUNDLAND AND LABRADOR HYDRO GENERATION EXPANSION ANA
2010 INFEEED SCENARIO (\$000)

WACC	8.00%	InSvcyr	InSvcMo	InSvcCost	SerLife	Ins Rate	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067
PORTLAND	2036	12	155,671	60	0.100%	10,932	10,724	10,516	10,309	10,101	9,894	9,686	9,479	9,271	9,064	8,856	
Return on Rate Base:																	
Beginning NBV						103,564	100,970	98,375	95,781	93,186	90,592	87,997	85,403	82,808	80,214	77,619	
Depreciation						2,595	2,595	2,595	2,595	2,595	2,595	2,595	2,595	2,595	2,595	2,595	
Ending NBV						100,970	98,375	95,781	93,186	90,592	87,997	85,403	82,808	80,214	77,619	75,025	
Average NBV						102,267	99,673	97,078	94,484	91,889	89,295	86,700	84,106	81,511	78,917	76,322	
Return on rate base %						8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	
Return on rate base \$000						8,181	7,974	7,766	7,559	7,351	7,144	6,936	6,728	6,521	6,313	6,106	
Insurance						156	156	156	156	156	156	156	156	156	156	156	
Fixed Charges						10,932	10,724	10,516	10,309	10,101	9,894	9,686	9,479	9,271	9,064	8,856	
CCCT 170	2037	12	373,411	30	0.125%	23,286	22,291	21,295	20,299	19,303	18,308	17,312	16,316	15,320	14,324	12,294	
Return on Rate Base:																	
Beginning NBV						135,880	123,433	110,986	98,539	86,092	73,645	61,198	48,751	36,304	23,857	11,410	
Depreciation						12,447	12,447	12,447	12,447	12,447	12,447	12,447	12,447	12,447	12,447	11,410	
Ending NBV						123,433	110,986	98,539	86,092	73,645	61,198	48,751	36,304	23,857	11,410	0	
Average NBV						129,657	117,210	104,763	92,315	79,868	67,421	54,974	42,527	30,080	17,633	5,705	
Return on rate base %						8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	
Return on rate base \$000						10,373	9,377	8,381	7,385	6,389	5,394	4,398	3,402	2,406	1,411	456	
Insurance						467	467	467	467	467	467	467	467	467	467	428	
Fixed Charges						23,286	22,291	21,295	20,299	19,303	18,308	17,312	16,316	15,320	14,324	12,294	
GT50	2046	12	140,871	25	0.125%	12,310	11,859	11,408	10,957	10,507	10,056	9,605	9,154	8,703	8,253	7,802	
Return on Rate Base:																	
Beginning NBV						84,053	78,418	72,783	67,149	61,514	55,879	50,244	44,609	38,974	33,339	27,705	
Depreciation						5,635	5,635	5,635	5,635	5,635	5,635	5,635	5,635	5,635	5,635	5,635	
Ending NBV						78,418	72,783	67,149	61,514	55,879	50,244	44,609	38,974	33,339	27,705	22,070	
Average NBV						81,236	75,601	69,966	64,331	58,696	53,061	47,427	41,792	36,157	30,522	24,887	
Return on rate base %						8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	
Return on rate base \$000						6,499	6,048	5,597	5,146	4,696	4,245	3,794	3,343	2,893	2,442	1,991	
Insurance						176	176	176	176	176	176	176	176	176	176	176	
Fixed Charges						12,310	11,859	11,408	10,957	10,507	10,056	9,605	9,154	8,703	8,253	7,802	

NEWFOUNDLAND AND LABRADOR HYDRO GENERATION EXPANSION ANA
2010 INFEEED SCENARIO (\$'000)

WACC	8.00%	InSvcyr	InSvcMo	InSvcCost	SerLife	Ins Rate	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067
GT50		2050	12	152,483	25	0.125%	15,276	14,788	14,300	13,812	13,324	12,837	12,349	11,861	11,373	10,885	10,397
Return on Rate Base:																	
Beginning NBV							115,379	109,279	103,180	97,081	90,982	84,882	78,783	72,684	66,584	60,485	54,386
Depreciation							6,099	6,099	6,099	6,099	6,099	6,099	6,099	6,099	6,099	6,099	6,099
Ending NBV							109,279	103,180	97,081	90,982	84,882	78,783	72,684	66,584	60,485	54,386	48,286
Average NBV							112,329	106,230	100,131	94,031	87,932	81,833	75,733	69,634	63,535	57,435	51,336
Return on rate base %							8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Return on rate base \$'000							8,986	8,498	8,010	7,522	7,035	6,547	6,059	5,571	5,083	4,595	4,107
Insurance							191	191	191	191	191	191	191	191	191	191	191
Fixed Charges							15,276	14,788	14,300	13,812	13,324	12,837	12,349	11,861	11,373	10,885	10,397
GT50		2054	12	165,053	25	0.125%	18,648	18,120	17,592	17,064	16,536	16,007	15,479	14,951	14,423	13,895	13,367
Return on Rate Base:																	
Beginning NBV							151,299	144,696	138,094	131,492	124,890	118,288	111,686	105,084	98,482	91,880	85,277
Depreciation							6,602	6,602	6,602	6,602	6,602	6,602	6,602	6,602	6,602	6,602	6,602
Ending NBV							144,696	138,094	131,492	124,890	118,288	111,686	105,084	98,482	91,880	85,277	78,675
Average NBV							147,998	141,395	134,793	128,191	121,589	114,987	108,385	101,783	95,181	88,578	81,976
Return on rate base %							8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Return on rate base \$'000							11,840	11,312	10,783	10,255	9,727	9,199	8,671	8,143	7,614	7,086	6,558
Insurance							206	206	206	206	206	206	206	206	206	206	206
Fixed Charges							18,648	18,120	17,592	17,064	16,536	16,007	15,479	14,951	14,423	13,895	13,367
GT50		2058	12	178,658	25	0.125%	0	1,803	21,329	20,757	20,185	19,614	19,042	18,470	17,899	17,327	16,755
Return on Rate Base:																	
Beginning NBV							0	178,658	178,062	170,916	163,770	156,624	149,477	142,331	135,185	128,038	120,892
Depreciation							0	596	7,146	7,146	7,146	7,146	7,146	7,146	7,146	7,146	7,146
Ending NBV							0	178,062	170,916	163,770	156,624	149,477	142,331	135,185	128,038	120,892	113,746
Average NBV							0	14,863	174,489	167,343	160,197	153,050	145,904	138,758	131,611	124,465	117,319
Return on rate base %							8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Return on rate base \$'000							0	1,189	13,959	13,387	12,816	12,244	11,672	11,101	10,529	9,957	9,386
Insurance							0	19	223	223	223	223	223	223	223	223	223
Fixed Charges							0	1,803	21,329	20,757	20,185	19,614	19,042	18,470	17,899	17,327	16,755

NEWFOUNDLAND AND LABRADOR HYDRO GENERATION EXPANSION ANA
2010 INFEEED SCENARIO (\$000)

WACC	8.00%	InSvcyr	InSvcMo	InSvcCost	SerLife	Ins Rate	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067
GT50		2063	12	197,253	25	0.125%	0	0	0	0	0	0	1,991	23,549	22,918	22,286	21,655
Return on Rate Base:																	
Beginning NBV							0	0	0	0	0	0	197,253	196,595	188,705	180,815	172,925
Depreciation							0	0	0	0	0	0	658	7,890	7,890	7,890	7,890
Ending NBV							0	0	0	0	0	0	196,595	188,705	180,815	172,925	165,035
Average NBV							0	0	0	0	0	0	16,410	192,650	184,760	176,870	168,980
Return on rate base %							8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Return on rate base \$000							0	0	0	0	0	0	1,313	15,412	14,781	14,150	13,518
Insurance							0	0	0	0	0	0	21	247	247	247	247
Fixed Charges							0	0	0	0	0	0	1,991	23,549	22,918	22,286	21,655

GT50		2066	12	209,327	25	0.125%	0	0	0	0	0	0	0	0	0	2,113	24,990
Return on Rate Base:																	
Beginning NBV							0	0	0	0	0	0	0	0	0	209,327	208,629
Depreciation							0	0	0	0	0	0	0	0	0	698	8,373
Ending NBV							0	0	0	0	0	0	0	0	0	208,629	200,256
Average NBV							0	0	0	0	0	0	0	0	0	17,415	204,443
Return on rate base %							8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Return on rate base \$000							0	0	0	0	0	0	0	0	0	1,393	16,355
Insurance							0	0	0	0	0	0	0	0	0	22	262
Fixed Charges							0	0	0	0	0	0	0	0	0	2,113	24,990

NEWFOUNDLAND AND LABRADOR HYDRO GENERATION EXPANSION ANA
2010 INFEEED SCENARIO (\$'000)

WACC	8.00%	InSvcyr	InSvcMo	InSvcCost	SerLife	Ins Rate	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067
TOTAL FUEL EXPENSE							25,084	28,766	32,410	35,987	40,332	44,514	48,881	53,220	60,929	71,271	84,727
No. 2 Fuel Expense							25,084	28,766	32,410	35,987	40,332	44,514	48,881	53,220	60,929	71,271	84,727
\$/litre							2.480	2.530	2.580	2.630	2.685	2.740	2.795	2.850	2.905	2.965	3.025
\$/bbl			158.97				394.20	402.20	410.10	418.10	426.80	435.60	444.30	453.10	461.80	471.30	480.90
Barrels (000's)							63.6	71.5	79.0	86.1	94.5	102.2	110.0	117.5	131.9	151.2	176.2
No. 6 Fuel Expense							0	0	0	0	0	0	0	0	0	0	0
\$/bbl																	
Barrels (000's)							0	0	0	0	0	0	0	0	0	0	0
TOTAL POWER PURCHASE EXPENSE							980,366	999,533	1,019,151	1,039,126	1,059,490	1,080,297	1,101,503	1,123,139	1,145,214	1,167,997	1,190,828
Power purchase agreements - Other							43,229	43,593	43,965	44,344	44,730	45,124	45,526	45,936	46,355	46,781	47,216
Power purchases - Labrador							937,137	955,940	975,186	994,783	1,014,760	1,035,173	1,055,977	1,077,203	1,098,859	1,121,216	1,143,611
TOTAL OPERATING COSTS							53,295	54,943	58,323	59,932	77,117	63,314	65,267	69,210	71,243	82,295	86,508
Totals by component							1,230,802	1,250,305	1,289,677	1,307,470	1,341,997	1,345,814	1,367,965	1,412,072	1,435,890	1,474,180	1,479,502
Totals per Strategist (Exhibit 14)							1,230,802	1,250,305	1,289,677	1,307,471	1,341,997	1,345,814	1,367,966	1,412,073	1,435,890	1,474,181	1,479,503
Difference							(0)	(0)	0	(1)	0	(0)	(1)	(0)	(1)	(1)	(1)
Total fuel above							25,084	28,766	32,410	35,987	40,332	44,514	48,881	53,220	60,929	71,271	84,727
Plus fuel component of CBPP PPA							0	0	0	0	0	0	0	0	0	0	0
Plus Muskrat Falls Power Purchases							937,137	955,940	975,186	994,783	1,014,760	1,035,173	1,055,977	1,077,203	1,098,859	1,121,216	1,143,611
							962,222	984,706	1,007,596	1,030,770	1,055,092	1,079,686	1,104,858	1,130,423	1,159,788	1,192,487	1,228,338
Fuel per Exhibit 14							962,222	984,706	1,007,596	1,030,770	1,055,092	1,079,686	1,104,859	1,130,423	1,159,789	1,192,487	1,228,338
							(0)	0	0	(0)	0	0	(1)	0	(1)	(0)	(0)

1 Q. What is the sensitivity of the CPW if the time frame was reduced from 2067 to
2 2041?

3

4

5 A. If the analysis period is truncated at 2041 instead of the full analytical term to
6 2067, the CPW preference of the Interconnected Scenario over the Isolated Island
7 Scenario is \$1,058 million. This was calculated from the annual data filed in Exhibit
8 14.

9

10 No end of study treatment has been applied to the value of assets remaining at the
11 end of the reduced study period. It is assumed that any remaining value will be
12 recovered in the period subsequent to the study.

1

2 Q. What consideration has been given to the excess power capacity that will become
3 available associated with the termination of the Upper Churchill Falls Agreement in
4 2041?

5

6 A. In its analysis of interconnection alternatives, Nalcor compared the Interconnected
7 Scenario (construction of Muskrat Falls and the Labrador Island Transmission Link)
8 to deferral of the interconnection between Labrador and the Island to 2041, and
9 then accessing Churchill Falls power. The following issues resulted in Nalcor
10 screening out the deferred interconnection and selecting the Interconnected
11 Scenario as the preferred interconnected option:

12

13 Uncertainties and risks with the viability of this alternative are evident when the
14 deferred interconnection was evaluated against Nalcor's four Island supply option
15 evaluation criteria:

16

17 • Security of supply and reliability

18 There is inherent uncertainty around guaranteeing the availability of supply
19 from Churchill Falls in 2041 because it is difficult to determine the
20 environmental and policy frameworks that will be in place 30+ years out.

21 There are other issues surrounding the CF asset with respect to HQ, as
22 Nalcor is not the sole shareholder of the Churchill Falls operation.

23

24 There is also significant risk associated with maintaining reliable supply
25 through continued life extension measures for Holyrood generating station
26 through to 2041. At that time, the first two units at Holyrood will be 70
27 years old.

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- Cost to ratepayers

Deferral of the interconnection would result in significantly higher rates for Island consumers between now and 2041 and does not provide rate stability to Island consumers as rates are tied to highly volatile fossil fuel prices for the first 30+ years of the study period along with escalating maintenance costs for Holyrood and an increasing likelihood that replacement of the plant will be required prior to 2041.

- Environmental compliance

Island customers will remain dependent on fossil fuel generation for the first 30+ years of the study resulting in continued and increasing GHG emissions. Given the Government of Canada’s decision to introduce GHG emissions regulation for coal fired generating stations, Nalcor’s ability to refurbish Holyrood without conforming to GHG emissions regulation is doubtful, and replacement of the plant may be required between now and 2041.

- Risk and uncertainty

Each of the screening criteria above has significant risk and uncertainty that are not present in either the Isolated or Interconnected Scenarios.

The prospect of requiring substantial investment to Holyrood to extend its life beyond that contemplated in the Isolated Scenario, or the real possibility of requiring replacement of Holyrood and then retiring it in 2041, increases the probability that this option will be substantially more expensive than projected.

1 In addition to the above screening criteria, deferral of construction of Muskrat Falls
2 and the Labrador Island Transmission Link introduces other economic
3 disadvantages:

4

5 • Value is lost by the Province through the deferral of monetization of
6 Newfoundland and Labrador’s energy warehouse. The revenue benefits of
7 Muskrat Falls, Gull Island, other wind and small hydro developments
8 throughout the Province will be foregone, thus reducing government’s
9 ability to invest in infrastructure and to provide services. Revenue that
10 could have been used to fund long-term assets and infrastructure will have
11 been used to purchase imported oil.

12

13 • Economic and employment benefits from domestic economic activity
14 associated with domestic energy construction projects will be foregone for
15 decades.

16

17 Finally, in comparison to the Interconnected Island scenario, the deferred
18 interconnection is not economically justified as the CPW premium for deferral over
19 the Interconnected Scenario (construction of Muskrat Falls and the Labrador Island
20 Transmission Link) is \$1,283 million.

1 Q. To what extent have the Isolated Island Option cost estimates been updated as
2 related to Island Pond (2006), Portland Creek (2007), and Round Pond (1989)?

3

4

5 A. Given that the Interconnected Scenario holds a \$2.2 billion dollar CPW advantage
6 over the Isolated Scenario, and is therefore the preferred solution, no action has
7 been taken to update the cost estimates for these projects, except to escalate them
8 annually.

9

10 Nalcor does not believe that further study beyond that undertaken would reduce
11 the costs of these projects. To the extent that any increase in costs would only
12 increase the preference of the Interconnected Scenario, further efforts to update
13 these cost estimates are not warranted.

1 Q. Does the costing of all projects estimates include AFUDC and Escalation? Has this
2 been incorporated in the CPW analysis and available for review?

3

4

5 A. All project cost estimates (both Interconnected and Isolated scenarios) include
6 escalation.

7 Multi-year regulated projects include an estimate for AFUDC, while single year
8 projects contain no specific provision. For the latter, the details of the AFUDC and
9 escalation were included in the capital cost estimates and cannot be extracted for
10 review.

11 In the case of the Muskrat Falls investment itself, which is non-regulated, interest
12 during construction (IDC) will be rolled up and capitalized as applicable for the
13 capital structure specified. For non-regulated assets, there is no provision to
14 capitalize the cost of equity during construction.

15

1 Q. Recognizing that all projects related to each of the Options have not been
2 estimated at the same level of detail, what adjustments have/should be done in
3 order to be able to evaluate them on the same basis?
4

5
6 A. The Isolated Island options have not been estimated to the same level of detail as
7 the Muskrat Falls and Labrador–Island Link Projects. However in order to carry out
8 the CPW analysis, the screening level of estimate for the isolated island options was
9 considered appropriate for the analysis. Given the CPW difference between the
10 Labrador Interconnection and Isolated Island alternatives, and the relatively limited
11 contribution to CPW made by capital expenditures in the Isolated Island alternative,
12 it was deemed to be of no real advantage to expend the additional time, effort and
13 cost to do so.

- 1 Q. What is the composition of the capital cost definition for the HVDC Capital Cost
 2 Exhibit 5(e)?
 3
 4
 5 A. The table below provides the 2010\$ composition for the HVDC (i.e. Labrador-Island
 6 Transmission Link) Capital Cost as per Exhibit 5(e). Note this total includes all cost
 7 incurred to date.

HVDC Capital Cost DG2	\$000
Feasibility Studies, Environmental Assessment, Engineering & Design, and Project Management	232,403
DC Overland Transmission Lines	399,630
SOBI Cable Crossing and Landing Sites	323,882
Converter Stations, Electrodes and Switchyards	466,280
Island System Upgrades	193,733
Sub Total Direct 2010\$	1,615,928
Contingency	236,119
Sub Total Direct 2010\$ Including Contingency	1,852,048
Escalation	207,751
Sub Total Nominal \$ before AFUDC	2,059,798
AFUDC & Other	493,437
In Service HVDC Capital Cost	2,553,235

1 Q. Have the exchange rates in the CPW analysis been revised from those initially used
2 in the base year of the input document. For example, Table 4.1a of Exhibit #5(h)
3 (Holyrood) indicated \$1.50 CAD=\$1.00 USD.

4

5

6 A. The applicable exchange rate used for each input was considered, and where
7 material, inputs used in the analysis were adjusted accordingly. As the major driver
8 in the Isolated Scenario, the exchange rate applicable for pricing oil-based thermal
9 fuels (No. 6 and No. 2) for the 2010 CPW analysis was consistent with Nalcor 2010
10 corporate data assumptions, with 1 CAD \$ -> USD = 0.964 as per Conference Board
11 of Canada long run exchange rate forecast at January 2010.

12

13 The capital cost estimate for Muskrat Falls and the Labrador Island Transmission
14 Link incorporated an exchange rate of 1 CAD\$ -> USD = 0.95, and escalation
15 considers the impact of foreign exchange fluctuations on purchased items.

1 Q. Please provide a report and related documentation to support the option to allow
2 Holyrood to continue to operate in the Isolated Island alternative? Please include
3 all related legal, technical, environmental and economic considerations for the
4 operation or continued operation of Holyrood. For example, this will include the
5 potential additions for precipitators, scrubbers, NOx burners, and grade of fuel to
6 be used throughout its planned life of the alternative and the legal and
7 environmental drivers that guide this alternative. What constraints does
8 Newfoundland Hydro have on Holyrood operations today?

9
10

11 A. If legal, technical, environmental, or economic considerations required the early
12 retirement of Holyrood, then the CPW preference for the Labrador Interconnection
13 alternative would be improved, as the replacement investment would be required
14 earlier in the Isolated Scenario.

15

16 Since the Labrador Interconnection alternative provides a \$2.2 billion dollar
17 preference, no further consideration of issues that would further increase the CPW
18 of the Isolated Scenario was pursued.

1 Q. Does Nalcor have a requirement to continue purchasing energy from the Wind farm
2 NUGs for the foreseeable future or are the plants retired after 20 years of service?

3

4

5 A. Production from the existing wind farms located at St. Lawrence and Fermeuse is
6 purchased by Newfoundland and Labrador Hydro (Hydro) under the terms of 20
7 year Power Purchase Agreements (PPA's). There is no obligation to renew the
8 PPA's following the completion of the 20 year term.