

1 Q. Re: Calculation Procedure: Please state all reasons the Company did not propose a
2 change to the Equal Life Group calculation procedure. To the extent any analyses
3 pertaining to this procedure were performed, provide all such analyses.
4

5
6 A. When more than a single item of property is under consideration, a group procedure
7 for depreciation is appropriate because normally all of the items within a group do
8 not have identical service lives, but have lives that are dispersed over a range of
9 time. There are two primary group procedures, namely, average service life and
10 equal life group.
11

12 In the average service life procedure, the rate of annual depreciation is based on the
13 average life or average service life of the group, and this rate is applied to the
14 surviving balance of the group's cost. A characteristic of this procedure is that the
15 cost of plant retired prior to average life is not fully recouped at the time of
16 retirement, whereas the cost of plant retired subsequent to average life is more than
17 fully recouped. Over the entire life cycle, the portion of cost not recouped prior to
18 average life is balanced by the cost recouped subsequent to average life. In this
19 procedure, the accrued depreciation is based on the average service life of the group
20 and the average remaining life of each vintage within the group derived from the
21 area under the survivor curve between the attained age of the vintage and the
22 maximum age.
23

24 In the equal life group procedure, the property group is subdivided according to
25 service life. That is, each equal life group includes that portion of the property which
26 experiences the life of that specific group. The relative size of each equal life group
27 is determined from the property's life dispersion curve. The calculated depreciation

for the property group is the summation of the calculated depreciation based on the service life of each equal life group.

Gannett Fleming indicated that the ELG procedure provides a match of the consumption of service values of the assets in service to the depreciation expense. However, the ASL procedure is widely used throughout North America and has been used historically by a number of electric utilities in Canada (e.g. Manitoba Hydro per CEA survey done by Hydro). As such Gannett Fleming has also indicated that the ASL procedure is an acceptable procedure.

The 2005 depreciation study prepared by Gannett Fleming anticipated that Hydro would be seeking approval to transition away from a Sinking Fund method of depreciation to completely incorporate all aspects of commonly accepted regulatory group accounting, including a transition to recognize gains and losses on retirement to the Accumulated Depreciation account rather than the historic practice of booking gains and losses to the income statement. Additionally, the 2005 depreciation study did not review the account structure, but rather used the historic account groupings that were in place for a number of years. As such, in the view of Gannett Fleming, the matching of the consumption of service value to the depreciation expense resulting from the use of the ELG procedure provided a benefit due to the anticipated reduction in the amount of gains and losses that would be anticipated.

In preparation of the current depreciation study, two factors were noted by Gannett Fleming. Firstly, in anticipation of the implementation of the International Financial Reporting Standards (IFRS), Hydro completed a detailed review of the account structure of its depreciable account groupings and of the investment included in each of the revised accounts. The Hydro account structure is very highly

1 componentized (to a much greater level than most regulated Canadian electric
2 utilities), and in the view of Gannett Fleming, now includes assets that will have a
3 more similar life characteristic. Secondly, the IFRS requirements dictated that the
4 recognition of gains and losses on retirement should continue to be booked to the
5 income statement, rather than to the accumulated depreciation account as was
6 anticipated in the 2005 study. Given, these two factors, Gannett Fleming did not
7 view that the matching of the depreciation expense to the consumption of the
8 service value of assets inherent in the ELG calculations was as necessary in the
9 current study. Also given the wide spread acceptance of the ASL procedure, Gannett
10 Fleming agreed with Hydro that ASL is an appropriate procedure.

11
12 The implementation of the ELG procedure would significantly increase the revenue
13 requirement for depreciation expense as compared to the ASL method. Gannett
14 Fleming prepared a schedule of the depreciation rates that would result from the
15 use of the ELG procedure based on the plant balances as at December 31, 2009, as
16 shown in CA-NLH-59 Attachment 1. The total calculated annual accrual amount for
17 2009 in Schedule 1, page III-5 of Gannett's study was \$39.1 million. Under ELG, the
18 total would be \$44.5 million as shown on page 4 of CA-NLH-59 Attachment 1, an
19 increase of \$5.4 million.

**SCHEDULE 1. ESTIMATED SURVIVOR CURVES, ORIGINAL COST AND ANNUAL ACCRUALS
RELATED TO ESTIMATED ORIGINAL COST AT DECEMBER 31, 2009
EQUAL LIFE GROUP USED**

DEPRECIABLE WORK		SURVIVOR CURVE	ORIGINAL COST	BOOK	FUTURE ACCRUALS	CALCULATED ANNUAL		COMPOSITE
			AT DECEMBER 31, 2009	DEPRECIATION RESERVE		ACCRUAL AMOUNT	ACCRUAL RATE	REMAINING LIFE
(1)		(2)	(4)	(5)	(6)	(7)	(8)=(7)/(4)	(9)=(6)/(7)
A01	AIRCRAFT LANDING STRIP	22-S6	394,805.08	217,451	177,354	30,270	7.67%	5.9
A04	AUXILIARY POWER SYSTEMS	30-R4	3,283,352.56	1,647,378	1,635,975	152,314	4.64%	10.7
B01	BATTERY & POWER SYSTEMS	15-S3	8,289,725.71	3,637,112	4,652,614	618,708	7.46%	7.5
B02	BOILER SYSTEM	35-R3	1,946,158.89	395,063	1,551,096	55,212	2.84%	28.1
B03	BOOMS - TIMBERS	40-R1	263,995.47	236,552	27,443	1,444	0.46%	19.0
B04	BRIDGES	60-R4	4,257,163.40	3,049,973	1,207,190	28,770	0.68%	42.0
B05	BUILDINGS - OTHER	50-R0.5	48,812,722.58	23,386,172	25,426,551	899,590	1.84%	28.3
B06	BUILDINGS - METAL	55-R3	19,943,772.82	14,357,796	5,585,977	159,343	0.80%	35.1
B07	BUS DUCT GENERATOR	35-R3	825,804.04	425,560	400,244	22,316	2.70%	17.9
B08	BUSWORK & HARDWARE	40-R3	5,539,614.59	2,748,318	2,791,297	689,919	12.45%	4.0
C01	CABLES - TELECONTROL	40-R2.5	1,605,996.01	1,172,691	433,305	15,474	0.96%	28.0
C02	CABLE - SUBMARINE	45-R4	8,901,116.47	5,618,356	3,282,760	127,968	1.44%	25.7
C03	CABLES - UNDER GROUND	60-S4	1,852,851.63	1,202,958	649,894	19,015	1.03%	34.2
C04	CABLES - ABOVE GROUND	50-R3	9,336,561.23	5,199,675	4,136,886	164,285	1.76%	25.2
C06	CAPICTORS	35-R4	1,004,935.12	140,385	864,550	60,062	5.98%	14.4
C08	CHLORINATION SYSTEMS	40-R4			-			
C09	CIRCUIT BREAKERS	55-R3	16,714,614.21	6,625,080	10,089,534	331,996	1.99%	30.4
C10	COMPRESSED AIR SYSTEMS	40-R3	4,662,228.89	2,395,576	2,266,653	86,629	1.86%	26.2
C11	COMPUTERS	5-SQ	5,619,782.72	4,065,444	1,554,339	518,113	9.22% *	3.0
C13	CONDUCTOR	60-R3	62,857,533.60	16,902,895	45,954,639	1,427,121	2.27%	32.2
C14	CONDUCTOR - DISTRIBUTION	55-R3	21,401,471.20	9,384,068	12,017,403	316,324	1.48%	38.0
C15	CONTROL, METER / RELAYING	30-R1	18,718,502.07	8,317,645	10,400,857	704,595	3.76%	14.8
C16	COOLING SYSTEMS	40-R1.5	3,794,719.13	2,097,408	1,697,311	75,948	2.00%	22.3
C17	COUNTERPOISE	50-R3	3,558,954.86	991,815	2,567,140	95,610	2.69%	26.9
C18	CRANES	70-R3	6,369,327.68	462,789	5,906,539	139,905	2.20%	42.2
D01	DAMS & DYKES	100-R4	351,201,750.94	1,781,039	349,420,712	5,164,630	1.47%	67.7
D02	DIESEL SYSTEMS & ENGINES	25-S0.5	21,346,252.47	11,394,298	9,951,954	719,538	3.37%	13.8
D03	DISCONNECT SWITCHES	45-S2.5	9,114,371.51	4,056,214	5,058,158	228,305	2.50%	22.2
D04	DYKES AND LINERS	42-L1	1,887,138.00	1,592,485	294,653	12,870	0.68%	22.9
E01	ELEVATORS	40-S5	89,800.00	89,800	-	0	0.00%	
E02	EMS EQUIPMENT	25-R2.5	13,446,886.26	13,184,644	262,242	16,197	0.12%	16.2
E03	ENVIRONMENTAL EQUIPMENT	30-S4	10,395.75	2,630	7,766	282	2.71%	27.5
F01	FALL ARREST EQUIPMENT	10-L2	1,318,153.90	103,513	1,214,641	197,081	14.95%	6.2
F02	FENCING	47-R3	4,825,159.64	2,883,646	1,941,514	59,081	1.22%	32.9
F03	FIRE FIGHTING EQUIPMENT	45-R4	9,222,528.23	4,799,183	4,423,345	126,158	1.37%	35.1
F04	FOOTINGS & FOUNDATIONS	50-R4	16,144,467.22	6,483,604	9,660,863	388,961	2.41%	24.8
F05	FREQ CONVERSION	40-S4	869,211.95	36,565	832,647	21,927	2.52%	38.0
F06	FUEL SYSTEMS	50-R1.5	14,784,748.08	7,307,166	7,477,582	268,934	1.82%	27.8
G01	GAS TURBINE SYSTEMS	35-R4	30,993,022.69	25,552,246	5,440,777	294,472	0.95%	18.5
G02	GATES	80-R4	15,312,218.70	1,743,278	13,568,941	284,235	1.86%	47.7
G03	GENERATORS	60-S4	64,312,110.88	24,318,003	39,994,108	1,175,546	1.83%	34.0
G04	GENERATOR - WINDINGS	40-S3	6,766,230.94	6,392,535	373,696	24,522	0.36%	15.2
G05	GLYCOL SYSTEMS	40-S3	620,703.54	495,234	125,470	6,213	1.00%	20.2
G06	GOVENORS	45-S4	7,685,239.39	394,699	7,290,540	312,819	4.07%	23.3

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RELATED TO ESTIMATED ORIGINAL COST AT DECEMBER 31, 2009
EQUAL LIFE GROUP USED**

DEPRECIABLE WORK		SURVIVOR	ORIGINAL COST	BOOK	FUTURE	CALCULATED ANNUAL		COMPOSITE
		CURVE	AT	DEPRECIATION	ACCRUALS	ACCRUAL	ACCRUAL	REMAINING
			DECEMBER 31, 2009	RESERVE		AMOUNT	RATE	LIFE
(1)	(2)	(4)	(5)	(6)	(7)	(8)=(7)/(4)	(9)=(6)/(7)	
G07	GROUND WIRE SYSTEM	55-R4	7,302,893.45	2,167,951	5,134,942	151,293	2.07%	33.9
H01	HRDWIRED SUPRVSRY EQUIP	17-L3			-			
I01	INFORMATION DELIVERY SYS - ECC	20-S4			-			
I02	INSTRUMENTATION	26-L0.5	4,018,333.05	1,212,524	2,805,809	197,483	4.91%	14.2
I03	INSULATORS	30-L3	36,376,195.89	10,491,724	25,884,472	1,630,047	4.48%	15.9
I04	INTAKE STRUCTURES	100-R4	18,844,444.76	100,300	18,744,145	273,248	1.45%	68.6
I05	INVERTERS	25-S3	466,597.96	312,787	153,811	10,563	2.26%	14.6
L03	LAND IMPROVMENTS	50-R3	12,638,775.53	7,147,132	5,491,644	210,343	1.66%	26.1
L04	LIGHTING SYSTEMS	45-R4	550,249.54	390,331	159,919	10,448	1.90%	15.3
L05	LIGHTNING ARRESTORS	58-R3	5,619,879.81	1,764,959	3,854,921	90,042	1.60%	42.8
L06	LINE COUPLING EQUIPMENT	23-R5	12,725.56	12,726	(0)	0	0.00%	
M01	MAIN BREAKERS	42-R0.5	551,508.09	210,996	340,512	13,912	2.52%	24.5
M03	METALCLAD SWITCHGEAR CUB/EQU 4kv/600	30-R4	1,849,870.49	1,442,814	407,056	55,681	3.01%	7.3
M04	METER TEST SWITCHES	35-R5	48,910.55	31,786	17,125	1,058	2.16%	16.2
M05	METERING TANKS	37-R3	208,167.19	108,522	99,645	6,486	3.12%	15.4
M06	METERS - DIGITAL	20-L3	3,430,944.36	745,450	2,685,494	226,252	6.59%	11.9
M07	METERS - ANALOGUE	25-L3	488,014.47	370,459	117,555	17,184	3.52%	6.8
M08	METERS - OTHER	22-L3	194,391.51	72,936	121,456	12,317	6.34%	9.9
M10	MISC. UNITS OF PROP	20-R1	2,035,856.23	1,205,671	830,185	130,421	6.41%	6.4
M11	MOBILE - A.T.V.'S & SNOWMOBILES	7-SQ	1,369,874.43	550,216	819,658	161,322	11.78%	5.1
M12	MOBILE - AIR COMPRESSOR, ATTACHMENT & BOAT	20-R2	410,663.64	325,669	84,995	6,329	1.54%	13.4
M13	MOBILE - ARGO'S	7-SQ	30,211.03	28,589	1,622	541	1.79% *	3.0
M14	MOBILE - FLEX/FORK/LOAD/GRADE/MUSK/TRAILER	20-R2	8,248,424.67	5,220,195	3,028,230	226,982	2.75%	13.3
M16	MULTIPLEX EQUIPMENT	18-R2.5	2,889,207.03	2,096,283	792,924	77,378	2.68%	10.2
O01	OFFICE EQUIPMENT	20-SQ	1,195,347.67	877,289	318,059	17,556	1.47%	18.1
O02	OFFICE FURNITURE	20-SQ	4,269,330.12	3,839,669	429,661	25,252	0.59%	17.0
P01	P.C.B. STORAGE CONTAINER	30-R4	42,479.84	38,586	3,894	343	0.81%	11.4
P02	PABX - PRIV AUTO BRANCH EXCH	20-R4	819,535.49	427,128	392,407	25,673	3.13%	15.3
P03	PENSTOCK	70-R4	56,215,065.27	8,625,533	47,589,532	1,215,104	2.16%	39.2
P04	POLE CRIBS & POLE HARDWARE	50-L2	65,911,264.63	22,355,247	43,556,018	1,323,554	2.01%	32.9
P05	POLE STRUCTURES - WOOD	53-R4	104,505,267.12	25,429,257	79,076,010	2,590,137	2.48%	30.5
P06	POLES - CONCRETE	25-R4	215,304.78	160,922	54,383	10,031	4.66%	5.4
P07	POLES - WOOD	37-R3	40,210,866.37	16,899,802	23,311,064	921,795	2.29%	25.3
P08	POWER LINE CARRIER	20-R4	5,006,762.55	3,748,600	1,258,163	88,116	1.76%	14.3
P09	POWER SYSTEMS	18-R3	590,182.62	116,245	473,938	46,342	7.85%	10.2
P10	POWERHOUSE	75-R3	93,181,235.98	13,007,098	80,174,138	1,767,982	1.90%	45.3
P11	PRINTERS	5-SQ	1,010,719.71	572,117	438,603	141,116	13.96%	3.1
P12	PROTECTIVE CONTROL & RELAY PANELS	30-R3	4,458,227.98	909,807	3,548,421	211,858	4.75%	16.7
R01	RADIO TOWERS (WOOD OR STEEL)	35-R3	9,331,364.82	6,073,961	3,257,404	129,267	1.39%	25.2
R02	RADIOS - FIXED MICROWAVE EQUIPMENT	22-R4	5,431,981.92	3,846,942	1,585,040	113,913	2.10%	13.9
R03	RADIOS - FIXED UHF EQUIPMENT	15-L1.5	114,223.78	18,190	96,034	9,853	8.63%	9.7
R04	RADIOS - FIXED VHF EQUIPMENT	19-R3	330,529.66	275,437	55,093	4,879	1.48%	11.3
R05	RADIOS - MOBILE VHF BASE STATION	15-R3	4,027,815.31	971,834	3,055,981	281,989	7.00%	10.8
R06	RAMPS - YARD STORAGE	25-R3	1,236,643.69	525,696	710,948	40,011	3.24%	17.8

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EQUAL LIFE GROUP USED**

DEPRECIABLE WORK		SURVIVOR CURVE	ORIGINAL COST	BOOK	FUTURE ACCRUALS	CALCULATED ANNUAL		COMPOSITE REMAINING LIFE
			AT DECEMBER 31, 2009	DEPRECIATION RESERVE		ACCRUAL AMOUNT	ACCRUAL RATE	
(1)		(2)	(4)	(5)	(6)	(7)	(8)=(7)/(4)	(9)=(6)/(7)
R07	REACTORS & RESISTORS	40-S4	860,433.73	69,734	790,700	32,239	3.75%	24.5
R08	RECLOSERS	40-R4	3,465,827.78	1,683,894	1,781,934	70,691	2.04%	25.2
R09	REGULATORS	35-R3	3,777,179.98	1,618,625	2,158,555	101,360	2.68%	21.3
R10	RESERVOIR POWER	30-R3			-			
R11	REVENUE METERING	35-R3	761,706.46	202,490	559,216	37,658	4.94%	14.8
R12	RIGHT - OF - WAYS	55-R4	18,020,542.37	5,989,582	12,030,960	446,622	2.48%	26.9
R13	ROADS	50-R4	80,846,786.54	3,979,048	76,867,739	3,182,889	3.94%	24.2
R14	ROUTERS & LAN	5-SQ	6,097,245.86	4,797,798	1,299,448	711,561	11.67% *	1.8
R15	RUNNER	33-R5	11,669,901.86	3,427,671	8,242,231	602,764	5.17%	13.7
S01	SCADA EQUIPMENT	20-R3	3,427,679.44	1,934,879	1,492,800	107,418	3.13%	13.9
S02	SECTIONALIZERS	25-R3	152,708.72	93,118	59,591	6,939	4.54%	8.6
S03	SERVERS	5-SQ	5,081,124.97	3,626,053	1,455,072	485,024	9.55% *	3.0
S04	SEWAGE DISPOSAL SYSTEM	45-R2.5	2,745,341.78	1,708,195	1,037,147	34,011	1.24%	30.5
S05	SOFTWARE	7-SQ	24,077,181.78	19,989,114	4,088,068	897,882	3.73%	4.6
S06	SPILLWAY STRUCTURES	100-R4	26,949,270.20	252,588	26,696,682	390,814	1.45%	68.3
S07	STACKS	40-R4	2,126,667.19	1,368,383	758,284	24,659	1.16%	30.8
S08	STATIC EXCITATION SYSTEM	32-R4	8,295,339.31	4,208,323	4,087,016	253,846	3.06%	16.1
S09	STATIC EXCITATION - XFORMERS	32-R4	873,229.34	727,374	145,855	22,614	2.59%	6.4
S10	STATION SERVICE	40-R4	3,399,370.83	800,120	2,599,251	159,499	4.69%	16.3
S11	STOP LOGS	65-R4	2,780,641.69	275,711	2,504,931	64,927	2.33%	38.6
S12	STORAGE PALLETS & RACKINGS	30-R3	21,648.13	21,648	0	0	0.00%	
S13	STORM & YARD DRAINAGE	45-R4	1,194,341.65	982,815	211,527	8,437	0.71%	25.1
S14	STREET LIGHTS	20-R2	2,546,773.85	637,293	1,909,481	176,543	6.93%	10.8
S15	STRUCTURAL SUPPORTS (WOOD OR STEEL)	45-R4	8,609,349.55	3,876,232	4,733,118	229,532	2.67%	20.6
S16	STUDIES	5-R0.5	3,358,184.45	1,444,249	1,913,935	162,424	4.84%	11.8
S17	SUMP SYSTEMS	35-R4	238,638.74	84,300	154,339	6,764	2.83%	22.8
S18	SURGE SYSTEMS	45-R3	3,348,520.61	1,702,117	1,646,404	115,938	3.46%	14.2
S19	STATION SWITCHING	45-L1.5	10,667,170.66	3,862,529	6,804,642	267,520	2.51%	25.4
S20	SWITCHING SYSTEMS - L.V.	60-R5	1,805,689.30	116,296	1,689,393	52,076	2.88%	32.4
T01	TELECONTROL SYSTEM	27-L1	10,919,784.86	8,230,476	2,689,309	174,070	1.59%	15.4
T02	TEST EQUIPMENT	20-SQ	2,128,465.42	1,876,474	251,991	13,671	0.64%	18.4
T03	TOOLS & EQUIPMENT	20-SQ	11,281,655.65	7,613,134	3,668,522	202,266	1.79%	18.1
T04	TOWERS	65-R3	71,559,609.79	13,980,497	57,579,113	1,476,878	2.06%	39.0
T05	TRANSFORMERS	55-R3	66,582,133.35	25,739,897	40,842,236	1,308,796	1.97%	31.2
T06	TRANSFORMERS - PADMOUNT	40-R3	2,379,222.82	807,836	1,571,387	57,579	2.42%	27.3
T07	TRANSFORMERS - POLE MOUNTED	30-R2	16,385,241.31	4,804,173	11,581,068	633,360	3.87%	18.3
T09	TURBINES	50-R3	42,852,398.82	3,835,012	39,017,387	1,560,727	3.64%	25.0
V01	VACUUM CLEANING SYSTEM	60-R4	72,451.00	65,210	7,241	253	0.35%	28.6
V02	VALVES - PENSTOCK	65-R3	6,882,405.29	1,183,261	5,699,144	140,098	2.04%	40.7
V03	VEHICLES - 1 TON	8-L4			-			
V04	VEHICLES - 3/4 TON AND UNDER	7-L3	3,157,849.72	1,627,287	1,530,563	385,021	12.19%	4.0
V05	VEHICLES - BOOMS/BODIES/CRANES/CAB & CHASSIS	15-L1.5	10,935,865.73	7,626,020	3,309,846	344,211	3.15%	9.6
V06	VEHICLES - CARS, STATION WAGONS & VAN	6-L3	2,088,514.89	1,153,743	934,772	279,958	13.40%	3.3
V07	VEHICLES - DUMP TRUCKS	20-L3	20,135.00	18,415	1,720	121	0.60%	14.2

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DEPRECIABLE WORK		SURVIVOR CURVE	ORIGINAL COST	BOOK	FUTURE ACCRUALS	CALCULATED ANNUAL		COMPOSITE REMAINING LIFE
			AT DECEMBER 31, 2009	DEPRECIATION RESERVE		ACCRUAL AMOUNT	ACCRUAL RATE	
(1)		(2)	(4)	(5)	(6)	(7)	(8)=(7)/(4)	(9)=(6)/(7)
W01	WATER REGULATING STRUCTURES	55-S4	21,392,991.48	2,437,259	18,955,732	570,438	2.67%	33.2
W02	WATER SYSTEMS	30-L4	2,833,440.10	1,121,179	1,712,261	118,766	4.19%	14.4
W03	WATER SYSTEMS - FEED	45-L2	4,197,894.00	3,857,403	340,491	19,743	0.47%	17.2
W04	WATER TREATMENT	34-L4	<u>2,793,278.18</u>	<u>2,101,734</u>	<u>691,544</u>	<u>48,509</u>	1.74%	14.3
TOTAL DEPRECIABLE PLANT			1,851,258,222.78	529,577,511	1,321,680,712	44,503,919		

* Three year minimum remaining life used