

1 Q. With regard to Osmond's evidence page 7, line 16, list the customers and  
2 annual sales that make up the non-regulated sales.

3

4 A. The only customer included in non-regulated sales is the Iron Ore Company  
5 of Canada and the annual sales forecast for this customer is 366.8 GWh (see  
6 Schedule VI H.G. Budgell).

1 Q. With regard to Brickhill's evidence page 7, lines 6 - 12, what transmission  
2 lines and terminal stations associated with the Holyrood gas turbine have  
3 been classified as demand, consistent with other gas turbines?

4

5 A. Brickhill's evidence, page 7, lines 6 - 12, is referring to generation assets  
6 only. There are no transmission assets associated with the Holyrood gas  
7 turbine.

- 1 Q. With regard to Brickhill's evidence page 8, lines 19 – 22, provide a copy of  
2 the LOLH study.  
3  
4  
5 A. Please refer to the response to NP-135.

- 1 Q. Provide a copy of the study on losses referred to in Brickhill's evidence page 9,  
2 line 13.  
3  
4 A. Please refer to the response to NP-124.

1 Q. How are NUG demand costs allocated among rate classes?

2

3 A. NUG demand costs are included in total Production Demand costs (Exhibit  
4 JAB-1, page 28). The allocation factors for Production Demand costs are 2  
5 CP kW (Exhibit JAB-1, page 38).

- 1 Q. Provide a breakdown (complete with amounts) for the \$19,244,334  
2 inventory/supplies referred to in Brickhill's schedule 1.1, page 2, line 6.  
3
- 4 A. See response to NP-64. The total inventory of \$21,095,000 was prorated  
5 among systems based on total plant in service, resulting in \$19,244,334  
6 allocated to Island Interconnected.

1 Q. With reference to Brickhill's schedule 3.1A, column 3:

2

3 1. How were the 2CP kW calculated for each of the rate classes?

4

5 2. Provide the detailed calculation.

6

7

8 A. With reference to Brickhill's schedule 3.1A, column 3:

9

10 1. The 2 CP kW were calculated by determining the peak numbers for  
11 each of the two highest demand months - January and December - in  
12 the 2002 load forecast. The results were summed to form the 2 CP  
13 kW.

14

15 2. See attached.

**Newfoundland and Labrador Hydro  
GENERATION CP - 2002 Load Forecast**

	Jan (kW)	Dec (kW)	2 CP (kW)
ISLAND INTERCONNECTED			
Newfoundland Power	989,280	989,288	1,978,568
Total Industrial	179,125	179,126	358,251
Subtotal Rural	90,931	86,080	177,010
Total	<u>1,259,335</u>	<u>1,254,494</u>	<u>2,513,829</u>



- 1 Q. What has happened to the Roddickton wood chip plant? Are any costs of  
2 that plant allocated to Hydro's current customers? If so, to whom, on what  
3 basis and what are those costs?  
4
- 5 A. Please see response to NP-68

1 Q. What has been Hydro's experience with respect to water to energy  
 2 conversion factors since the implementation of the Energy Management  
 3 System in 1989?

4  
 5

6 A. The table below shows Hydro's water to energy conversion factors since the  
 7 implementation of the Energy Management System. Note that economic  
 8 dispatch under the Energy Management System was implemented in early  
 9 1991 for Bay d'Espoir and the remaining plants late in 1991. The conversion  
 10 factors since January 1991 have been used at Bay d'Espoir and since 1992  
 11 for the other plants for determining the annual average energy capability.

**Hydroelectric Plant Conversion Factors  
 (GWh/MCM)**

Year	Bay D'Espoir	Upper Salmon	Hinds Lake	Cat Arm
1989	0.4296	0.1288	0.5425	0.9148
1990	0.4294	0.1296	0.5457	0.9233
1991	0.4357	0.1286	0.5452	0.9134
1992	0.4365	0.1294	0.5352	0.8978
1993	0.4343	0.1287	0.5349	0.8867
1994	0.4294	0.1269	0.5393	0.8999
1995	0.4325	0.1313	0.5383	0.8967
1996	0.4337	0.1322	0.5325	0.9078
1997	0.4318	0.1304	0.5409	0.9083
1998	0.4319	0.1303	0.5363	0.9044
1999	0.4319	0.1286	0.5371	0.8745
2000	0.4331	0.1264	0.5403	0.9032

- 1 Q. Provide the hydrological data referred to on page 3, lines 14 - 17 of the  
2 testimony of R. J. Henderson.  
3  
4  
5 A. Please refer to the data in IC-155 for the years 1989 to 1999.

1 Q. Provide available hydrological data relating to the Roddickton mini-hydro  
2 plant.

3

4

5 A. Hydro does not collect this data as it is impractical for such a small run of  
6 river plant. The only hydrological data available for the Roddickton mini-  
7 hydro plant is from the initial project analysis. At that time the average flow  
8 available for generation was estimated from available stream flow data to be  
9 18.9 Mm<sup>3</sup> per year.

- 1 Q. Provide the hydrological data behind the long term average.
- 2
- 3
- 4 A. Please refer to the attached tables.

# Newfoundland and Labrador Hydro

## VICTORIA RESERVOIR

MONTHLY INFLOWS (m<sup>3</sup> X 10<sup>6</sup>)

<u>Year</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEPT</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>Total</u>
1950	60.60	33.70	32.28	110.72	261.93	79.57	167.35	137.34	18.12	24.64	62.86	76.17	1,065.28
1951	66.83	103.36	73.91	218.89	106.47	70.51	64.85	68.53	55.22	64.85	173.87	88.07	1,155.36
1952	66.26	78.44	43.04	91.18	299.31	133.37	67.11	34.83	16.42	35.40	145.27	59.75	1,070.38
1953	103.07	59.47	43.89	210.68	102.22	107.89	51.54	45.02	60.60	103.92	72.49	95.99	1,056.78
1954	79.29	78.44	138.19	108.74	197.37	61.45	37.38	106.47	21.52	90.05	136.77	145.83	1,201.50
1955	76.74	55.22	37.38	82.40	192.55	97.41	26.90	82.12	98.54	109.87	83.25	55.78	998.16
1956	168.77	37.10	25.49	92.03	243.52	151.21	47.01	39.36	54.93	44.46	82.12	102.22	1,088.22
1957	76.17	32.28	38.51	39.08	243.52	139.04	79.00	56.63	94.01	133.09	75.04	183.78	1,190.15
1958	94.30	44.46	72.21	111.57	152.34	88.07	81.84	109.59	151.21	121.76	169.33	85.80	1,282.48
1959	37.38	33.98	24.64	100.81	242.96	103.92	31.71	28.60	61.73	72.21	102.22	127.14	967.30
1960	38.79	59.47	24.92	97.41	268.44	82.40	33.70	11.89	28.88	109.59	93.73	62.30	911.52
1961	30.30	11.33	12.74	41.34	246.92	167.64	38.79	20.67	30.30	98.83	100.24	71.64	870.74
1962	43.04	38.23	33.70	182.64	225.12	117.23	77.02	64.00	31.15	85.80	193.40	70.79	1,162.12
1963	128.56	55.78	28.32	104.49	299.31	122.90	84.10	29.45	57.20	59.18	124.88	113.83	1,208.00
1964	26.33	30.30	42.19	144.98	263.63	151.21	103.36	37.66	45.87	86.65	81.55	63.15	1,076.88
1965	49.27	14.16	105.62	32.56	191.42	171.88	39.36	25.49	22.94	93.16	131.67	72.77	950.30
1966	31.43	22.65	35.68	94.30	184.34	116.67	37.66	54.37	53.24	87.78	123.18	107.04	948.34
1967	57.77	31.15	26.62	26.05	282.89	68.81	28.60	112.98	35.40	91.75	190.86	156.31	1,109.19
1968	89.48	(97.98)	82.69	84.38	115.25	137.34	171.32	60.60	50.40	78.44	158.57	146.40	1,076.89
1969	67.68	242.39	52.67	88.35	287.70	62.86	15.86	37.10	38.79	69.66	195.39	202.47	1,360.92
1970	(151.78)	35.11	29.73	66.26	126.29	67.96	67.96	74.47	112.98	73.91	227.38	35.68	765.95
1971	154.44	120.35	104.77	342.63	171.32	37.38	67.96	104.21	60.60	76.17	179.53	81.84	1,501.20
1972	50.97	37.94	144.70	87.22	293.93	247.77	39.08	20.95	43.61	249.75	158.86	92.31	1,467.09
1973	47.01	89.76	39.08	103.36	284.87	75.61	68.53	116.95	14.44	70.79	111.57	154.61	1,176.58
1974	40.78	37.38	66.26	128.28	239.84	83.53	33.98	44.17	49.27	150.93	82.40	121.76	1,078.58
1975	39.08	17.84	75.32	105.34	271.56	35.11	22.94	18.97	54.65	91.46	142.43	191.14	1,065.84
1976	123.18	98.54	60.03	195.67	189.16	35.96	33.70	25.20	67.11	131.96	115.82	202.18	1,278.51
1977	137.05	57.48	47.57	177.26	291.66	93.45	53.24	88.07	60.60	185.48	180.38	215.21	1,587.45
1978	197.65	36.25	66.26	110.72	284.02	102.22	56.07	21.80	26.33	44.74	45.59	58.62	1,050.27
1979	154.89	64.85	298.18	79.29	105.62	50.12	38.51	39.64	52.39	112.70	127.14	114.40	1,237.73
1980	94.58	20.67	40.78	185.76	199.92	76.46	127.43	74.19	79.57	116.38	158.86	72.21	1,246.81
1981	118.93	103.92	95.76	209.91	202.54	88.24	77.30	87.30	27.81	159.34	156.11	188.14	1,515.30
1982	47.06	37.22	41.80	149.84	391.93	78.11	60.73	30.70	63.40	75.05	67.29	78.77	1,121.90
1983	221.68	79.65	162.82	240.17	92.48	63.93	59.81	189.88	78.48	44.56	131.00	102.22	1,466.68

VICTORIA RESERVOIR

MONTHLY INFLOWS (m<sup>3</sup> X 10<sup>6</sup>)

<u>Year</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEPT</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>Total</u>
1984	77.17	117.67	76.57	139.83	280.90	130.45	57.49	107.55	92.92	41.05	57.63	82.01	1,261.24
1985	11.77	2.06	20.32	65.21	292.90	189.22	31.97	28.01	57.63	3.46	28.04	57.25	787.84
1986	230.10	71.68	32.44	311.63	47.26	78.53	27.00	0.56	53.78	62.90	39.39	42.75	998.02
1987	59.59	24.20	102.18	335.72	142.48	28.77	5.88	3.53	(12.69)	117.34	208.98	66.70	1,082.68
1988	7.18	58.42	150.70	175.36	257.77	122.56	60.43	27.52	36.73	84.66	133.19	66.46	1,180.98
1989	33.79	27.89	34.19	121.49	190.28	29.68	18.08	50.52	71.59	117.82	156.69	38.26	890.28
1990	40.69	42.00	(6.04)	332.05	284.96	60.84	30.10	36.63	22.01	105.30	100.89	214.08	1,263.51
1991	39.73	47.80	71.79	123.88	224.27	76.78	43.54	34.57	68.55	152.16	132.19	54.63	1,069.89
1992	44.79	15.01	59.82	149.74	320.58	122.24	20.85	110.07	62.92	100.48	58.54	79.45	1,144.49
1993	37.97	57.62	55.92	233.77	318.08	71.49	72.16	95.81	36.08	139.01	138.93	246.24	1,503.08
1994	85.23	45.35	85.93	263.65	339.25	86.13	34.81	(3.87)	53.28	44.23	136.47	58.83	1,229.29
1995	108.04	38.63	86.15	142.48	194.37	93.23	77.04	78.35	72.49	76.28	168.71	105.65	1,241.42
1996	100.50	238.82	125.06	85.90	119.55	67.70	113.05	37.34	46.23	98.75	63.03	164.75	1,260.68
1997	121.43	99.72	21.96	108.47	314.53	95.51	49.10	41.76	80.78	84.57	104.66	41.25	1,163.74
1998	78.02	99.57	212.24	188.80	186.48	43.38	72.15	56.40	133.35	82.10	107.59	66.87	1,326.95
1999	138.80	171.03	165.37	182.21	180.09	21.52	17.18	119.47	87.75	117.57	111.92	130.72	1,443.63
2000	136.35	79.85	120.04	247.99	179.46	51.42	71.84	55.92	32.31	154.26	142.52	123.29	1,395.25

# Newfoundland and Labrador Hydro

## GREY RESERVOIR

(Meelpaeg + Granite + Burnt)  
MONTHLY INFLOWS (m<sup>3</sup> X 10<sup>6</sup>)

<u>Year</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEPT</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>Total</u>
1950	109.02	67.39	51.25	206.71	603.43	136.49	148.38	118.65	33.41	37.94	63.15	127.14	1,702.96
1951	175.00	255.13	167.35	381.14	198.22	91.75	81.55	175.85	86.65	84.38	309.22	212.38	2,218.62
1952	197.65	245.79	133.66	201.33	560.67	190.01	99.11	70.23	49.55	50.97	309.22	197.09	2,305.28
1953	152.06	218.89	103.36	412.29	208.70	216.34	83.25	64.00	71.64	184.06	175.28	248.34	2,138.21
1954	147.81	197.37	330.17	203.60	320.55	161.12	99.96	177.83	62.30	107.32	275.24	387.09	2,470.36
1955	251.17	118.65	143.00	163.39	268.16	194.25	81.55	107.04	94.30	146.11	222.57	144.13	1,934.32
1956	351.41	121.76	81.55	242.96	505.17	251.74	123.74	85.23	61.45	64.28	155.46	273.54	2,318.29
1957	190.01	83.25	83.53	123.74	358.21	150.08	64.00	93.16	168.20	203.60	179.81	339.80	2,037.39
1958	224.55	125.73	158.29	165.94	214.64	136.49	148.66	149.51	243.24	217.76	317.43	252.02	2,354.26
1959	78.15	81.84	65.70	238.99	366.14	122.33	60.03	49.27	75.89	75.89	246.36	299.31	1,759.90
1960	111.00	121.76	97.98	140.17	423.90	118.93	67.68	35.40	46.44	121.48	176.98	122.05	1,583.77
1961	96.28	36.81	47.01	139.89	547.93	237.01	59.18	27.18	22.94	82.40	135.92	139.04	1,571.59
1962	91.18	128.56	124.03	441.18	405.78	220.02	131.96	103.92	64.00	158.29	442.03	202.47	2,513.42
1963	424.47	130.82	65.13	196.52	578.23	188.31	103.64	88.63	179.25	165.37	187.46	250.60	2,558.43
1964	81.84	92.31	93.45	348.01	413.99	208.41	185.76	111.29	100.52	268.16	190.57	155.74	2,250.05
1965	135.07	57.48	363.02	103.92	445.42	256.55	86.93	54.37	49.84	148.66	271.28	161.69	2,134.23
1966	76.17	52.95	69.09	194.54	312.33	189.72	94.01	117.23	100.81	164.24	191.99	219.17	1,782.25
1967	130.82	70.51	81.27	87.78	605.41	135.92	52.67	147.25	86.08	178.40	415.69	293.65	2,285.45
1968	156.03	197.65	214.36	219.17	197.65	249.19	233.33	147.81	137.62	138.75	296.19	282.32	2,470.07
1969	154.04	532.07	103.64	169.33	546.23	98.26	24.07	45.87	41.06	134.51	365.00	527.83	2,741.91
1970	77.02	57.48	103.64	113.83	274.96	93.73	143.85	166.22	84.95	65.41	227.67	233.33	1,642.09
1971	97.69	197.65	180.38	670.83	289.12	101.94	23.22	220.59	107.32	177.26	341.50	230.50	2,638.00
1972	99.96	84.95	297.61	210.68	564.64	458.45	168.49	24.07	47.01	314.60	340.37	316.30	2,927.13
1973	184.63	220.59	109.59	163.11	554.44	285.72	144.13	219.74	156.31	128.56	234.18	381.14	2,782.14
1974	202.75	83.53	193.97	354.24	498.66	292.51	53.80	63.71	219.46	254.85	227.38	265.33	2,710.19
1975	118.08	41.06	94.58	296.76	498.94	62.58	113.83	55.50	118.93	156.31	319.98	408.05	2,284.60
1976	309.22	309.50	181.79	506.31	335.55	211.53	15.86	57.20	235.31	256.55	281.75	350.28	3,050.85
1977	324.51	211.53	158.01	387.09	424.19	342.07	138.19	218.89	111.29	401.82	341.78	435.51	3,494.88
1978	471.76	225.97	150.93	264.76	480.54	289.40	214.36	(12.18)	25.77	94.01	89.76	121.76	2,416.84
1979	303.56	139.89	507.44	226.53	134.51	99.68	83.82	81.27	152.91	163.67	273.82	211.81	2,378.91
1980	28.60	48.42	149.80	346.03	447.41	287.13	267.31	207.56	66.83	193.12	301.01	183.78	2,527.00
1981	292.80	233.05	189.49	386.52	472.59	201.48	120.53	168.84	148.18	445.36	212.11	334.79	3,205.74
1982	166.00	145.34	183.05	314.14	624.25	260.82	179.28	83.19	91.67	175.09	123.34	186.82	2,532.99



**GREY RESERVOIR**

(Meelpaeg + Granite + Burnt)  
MONTHLY INFLOWS (m<sup>3</sup> X 10<sup>6</sup>)

<u>Year</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEPT</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>Total</u>
1983	573.61	184.33	348.71	442.70	276.61	173.24	156.82	219.91	128.59	197.39	233.13	187.22	3,122.26
1984	272.67	359.13	211.84	264.16	571.72	294.72	89.51	149.49	163.79	58.64	65.79	190.98	2,692.44
1985	86.96	87.50	66.77	166.68	445.71	513.80	215.63	(20.47)	83.51	67.70	(14.53)	55.66	1,754.92
1986	304.78	253.29	115.99	500.33	296.54	119.40	59.93	(9.85)	118.80	170.89	107.66	129.47	2,167.23
1987	57.95	10.20	103.53	516.80	396.57	151.35	1.61	56.61	31.91	114.72	331.67	285.98	2,058.90
1988	40.78	75.33	323.97	377.81	449.05	290.28	198.60	63.12	35.47	82.71	255.39	100.46	2,292.97
1989	38.76	20.79	70.42	250.88	402.75	159.94	53.47	76.33	117.15	247.47	239.46	104.66	1,782.08
1990	46.42	36.56	43.94	493.89	555.99	323.34	64.16	26.42	67.92	199.08	254.21	354.53	2,466.46
1991	235.23	109.44	180.97	192.87	453.18	192.18	35.33	42.45	140.83	189.12	292.60	102.27	2,166.47
1992	126.82	83.09	232.60	302.14	483.70	341.12	105.28	21.46	40.91	135.20	171.33	179.59	2,223.24
1993	106.81	150.23	192.74	263.44	613.55	270.90	67.74	209.79	26.68	198.40	365.49	501.90	2,967.67
1994	209.19	80.57	240.95	429.65	571.00	258.58	167.18	54.69	62.91	72.07	92.72	171.67	2,411.18
1995	289.17	117.33	105.12	249.08	482.48	228.16	158.42	101.65	139.40	185.71	378.81	260.27	2,695.60
1996	181.95	432.48	368.51	217.18	168.02	98.83	262.45	126.07	91.10	201.52	107.72	289.95	2,545.78
1997	271.66	270.42	90.39	176.19	539.92	291.11	153.37	54.79	233.85	173.59	233.08	61.55	2,549.92
1998	85.19	64.68	440.49	403.51	428.49	100.29	120.67	50.57	209.96	173.20	184.47	153.84	2,415.36
1999	292.52	397.08	412.39	398.90	376.95	182.45	109.37	174.28	193.84	257.47	257.06	361.43	3,413.74
2000	289.17	277.84	367.09	490.60	395.38	250.07	249.84	187.98	34.85	317.18	381.61	246.90	3,488.51

# Newfoundland and Labrador Hydro

## UPPER SALMON MONTHLY INFLOWS (m<sup>3</sup> X 10<sup>6</sup>)

<u>Year</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEPT</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>Total</u>
1950	45.87	28.60	18.41	81.55	261.65	54.37	20.67	17.56	9.06	10.19	12.74	48.99	609.66
1951	85.80	113.55	75.04	134.51	78.44	29.73	24.35	82.40	32.28	26.90	110.15	94.86	888.01
1952	105.91	119.78	67.68	87.78	203.31	61.16	35.40	28.88	21.52	15.57	125.16	98.54	970.69
1953	53.24	88.07	47.29	156.03	85.80	88.91	30.58	20.39	19.82	70.79	80.70	111.00	852.62
1954	60.31	91.46	141.58	80.14	106.19	77.02	49.55	65.98	28.32	32.00	109.59	172.17	1,014.31
1955	121.76	53.80	75.89	67.96	77.87	83.53	39.64	33.98	19.54	45.87	103.36	68.81	792.01
1956	137.62	65.13	40.49	111.00	196.80	87.22	59.47	37.10	15.57	20.95	64.00	123.74	959.09
1957	85.80	39.64	36.25	62.58	107.04	35.11	17.84	35.96	65.98	68.53	82.69	124.03	761.45
1958	97.41	62.86	69.94	57.48	66.26	52.39	60.03	48.14	80.42	73.62	108.74	106.75	884.04
1959	32.85	37.10	30.87	107.60	105.62	38.23	22.09	21.52	23.79	21.80	121.20	121.20	683.87
1960	50.40	59.75	52.67	68.81	135.92	45.02	33.41	13.88	7.08	22.37	75.32	55.50	620.13
1961	44.74	16.71	25.77	85.52	210.96	63.15	18.41	7.36	3.68	6.80	39.93	62.58	585.61
1962	47.29	78.72	78.44	232.48	127.71	81.55	46.16	35.11	26.90	63.43	173.02	91.75	1,082.56
1963	200.20	63.71	28.88	112.98	210.39	76.46	42.19	34.55	76.17	75.89	67.68	113.83	1,102.93
1964	37.66	53.24	47.01	157.44	149.51	72.49	73.06	43.04	43.89	102.51	107.60	69.94	957.39
1965	72.21	40.21	91.46	96.28	171.60	99.96	36.53	20.39	17.84	37.38	130.82	75.32	890.00
1966	37.10	26.05	28.60	114.12	107.89	55.50	43.04	41.06	42.76	52.10	52.39	127.14	727.75
1967	73.34	35.11	47.86	33.41	254.85	69.38	23.22	11.33	15.86	47.01	162.82	129.69	903.88
1968	75.32	79.29	115.25	87.22	99.39	82.97	47.86	23.79	63.71	35.96	86.08	118.93	915.77
1969	48.42	193.69	84.10	108.17	104.49	72.77	11.33	(4.25)	32.00	59.47	84.95	201.90	997.04
1970	75.89	38.79	60.60	127.71	135.92	20.10	62.30	100.81	65.13	(13.88)	99.39	155.46	928.22
1971	7.65	104.21	54.37	258.25	137.90	(7.65)	80.42	16.99	58.05	18.41	150.08	75.89	954.57
1972	49.55	32.00	80.70	103.07	179.53	54.09	83.82	(8.50)	21.80	102.79	85.52	67.39	851.76
1973	20.39	84.95	18.69	129.12	134.79	64.56	29.45	35.68	8.78	86.93	82.40	74.19	769.93
1974	4.53	19.82	53.52	173.30	110.44	51.82	2.27	(16.99)	(3.96)	124.88	12.74	136.20	668.57
1975	(38.79)	(3.96)	73.62	94.01	197.37	(38.79)	(2.27)	(2.83)	9.34	71.92	144.42	146.11	650.15
1976	102.79	64.56	48.14	154.89	95.99	27.18	(34.26)	(19.26)	113.83	124.88	29.45	131.67	839.86
1977	87.50	54.93	39.93	111.29	105.06	52.67	9.91	27.47	32.00	116.10	30.58	138.75	806.19
1978	118.93	14.16	45.02	133.09	82.40	80.14	(24.35)	(17.27)	(11.33)	56.63	(35.96)	82.69	524.15
1979	113.27	13.03	206.71	(30.87)	64.28	(16.14)	17.84	39.36	43.89	75.89	77.31	35.11	639.68
1980	65.41	20.39	60.60	183.78	122.61	73.91	65.70	38.51	83.53	58.90	82.69	48.42	904.45
1981	109.59	84.67	110.15	62.58	169.33	20.39	18.69	32.00	77.87	105.34	88.07	40.21	918.89
1982	34.26	(2.27)	31.43	167.64	167.07	15.86	47.86	(12.18)	49.84	18.69	126.29	95.71	740.20
1983	178.11	31.15	148.95	137.05	53.24	14.72	65.41	120.35	58.05	3.68	68.24	22.65	901.60

# Newfoundland and Labrador Hydro

## UPPER SALMON MONTHLY INFLOWS (m<sup>3</sup> X 10<sup>6</sup>)

<u>Year</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEPT</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>Total</u>
1984	63.15	114.12	48.14	117.23	231.35	48.42	32.28	98.26	83.53	8.78	60.88	30.58	936.72
1985	(8.50)	14.72	89.20	105.62	161.69	176.98	1.13	18.12	7.93	(24.64)	90.05	120.63	752.93
1986	157.72	45.87	20.67	262.50	13.59	13.31	2.83	46.72	4.53	73.34	56.07	54.09	751.24
1987	35.73	43.09	47.20	266.85	56.52	6.45	0.65	(42.12)	7.48	39.91	145.27	40.07	647.10
1988	48.27	166.60	141.37	174.13	91.39	78.57	23.11	18.60	(7.18)	62.91	132.14	131.96	1,061.87
1989	124.74	112.90	71.61	115.95	113.23	20.43	5.94	35.85	42.61	48.50	66.84	64.82	823.42
1990	115.77	78.31	65.19	252.40	144.33	(53.27)	33.16	(32.27)	(20.19)	60.34	91.45	126.47	861.69
1991	(1.28)	45.75	85.73	153.65	172.86	92.24	19.52	(7.63)	100.05	115.35	156.56	55.02	987.82
1992	40.22	58.65	154.38	114.56	194.92	105.82	65.68	61.37	85.76	126.22	53.38	83.49	1,144.45
1993	37.70	65.39	44.10	216.66	187.42	36.00	147.97	56.47	36.31	124.53	98.09	199.71	1,250.35
1994	154.24	58.84	129.15	208.29	145.56	51.99	37.19	38.54	74.51	36.34	131.40	(30.88)	1,035.17
1995	77.45	1.71	88.44	159.31	108.45	30.18	(0.27)	13.82	46.77	38.79	125.85	59.27	749.77
1996	51.46	131.41	70.73	46.62	60.42	26.57	93.85	11.71	80.68	74.22	50.81	145.56	844.04
1997	101.18	43.14	6.34	92.12	205.08	58.75	17.29	35.55	100.78	69.76	72.61	93.81	896.41
1998	36.55	87.98	115.27	218.67	98.28	49.85	77.62	36.23	113.83	36.20	89.29	82.08	1,041.85
1999	123.63	156.88	104.22	78.04	(0.69)	(28.03)	(30.69)	31.75	59.77	63.62	25.28	24.62	608.40
2000	87.82	56.58	50.77	65.50	46.27	(34.65)	(13.67)	(42.22)	0.12	146.88	97.90	55.08	516.38

# Newfoundland and Labrador Hydro

## LOWER SALMON

MONTHLY INFLOWS (m<sup>3</sup> X 10<sup>6</sup>)

<u>Year</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEPT</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1950	91.46	56.35	36.81	162.26	519.61	107.89	41.06	34.55	18.12	19.82	25.49	97.41	1,210.83
1951	170.47	225.40	148.66	267.03	156.03	59.18	48.14	163.39	64.00	53.52	218.61	188.02	1,762.45
1952	210.39	237.86	133.94	174.15	403.52	121.48	69.94	56.92	43.04	30.58	248.34	195.67	1,925.83
1953	105.34	175.00	93.73	310.07	170.47	176.13	60.31	40.21	39.64	140.17	159.99	220.31	1,691.37
1954	120.06	181.23	280.90	159.14	210.96	152.63	98.26	131.11	56.07	63.43	217.76	342.07	2,013.62
1955	241.54	106.47	150.93	134.51	154.89	165.94	78.72	67.68	38.51	91.46	205.58	136.77	1,573.00
1956	273.54	129.41	80.14	220.59	391.06	173.30	118.08	73.62	30.58	41.63	126.86	245.51	1,904.32
1957	170.47	79.00	72.21	124.59	212.38	69.94	35.11	71.08	131.39	136.20	163.95	246.07	1,512.39
1958	193.69	124.88	138.47	114.12	131.67	103.92	118.93	95.14	159.71	146.40	215.77	211.81	1,754.51
1959	65.13	73.91	60.88	213.79	209.26	76.17	44.17	43.04	47.29	43.61	244.37	240.69	1,362.31
1960	99.68	118.93	104.21	136.77	269.86	89.20	65.98	27.18	14.16	44.17	149.23	109.87	1,229.24
1961	88.63	32.85	50.97	169.90	418.52	125.44	36.53	14.44	7.36	13.59	79.57	124.03	1,161.83
1962	93.73	156.31	156.03	461.85	253.72	162.26	91.75	69.66	53.80	126.29	343.77	182.08	2,151.25
1963	397.57	126.86	56.92	224.55	417.67	151.78	83.82	68.53	151.50	150.93	134.22	225.97	2,190.32
1964	74.47	105.62	93.45	312.33	296.48	144.13	145.27	85.80	87.50	203.88	213.79	138.75	1,901.47
1965	143.28	79.57	181.51	191.42	340.37	198.78	72.77	40.21	35.68	74.19	259.67	149.80	1,767.25
1966	73.62	52.10	56.35	226.53	214.36	110.44	85.23	81.84	84.95	104.21	103.92	252.02	1,445.57
1967	145.83	69.66	94.86	66.54	505.74	137.34	46.44	22.65	31.43	93.45	323.10	257.12	1,794.16
1968	149.80	157.16	228.80	173.30	197.09	165.09	94.86	47.01	126.29	71.08	170.47	235.88	1,816.83
1969	95.99	384.83	166.79	214.36	207.28	144.13	22.37	(8.21)	63.71	118.08	169.05	400.97	1,979.35
1970	150.65	77.02	120.63	253.44	270.14	39.64	123.46	200.20	129.69	(27.18)	197.37	308.65	1,843.71
1971	15.01	207.00	108.17	512.25	273.54	(15.01)	159.99	33.70	115.53	36.81	297.89	150.36	1,895.24
1972	97.98	63.43	160.27	204.45	356.79	107.32	166.79	(16.99)	43.32	204.45	169.33	133.37	1,690.51
1973	40.78	169.05	37.38	256.55	267.59	127.99	58.33	70.79	17.84	172.45	163.67	147.25	1,529.67
1974	9.34	39.36	106.47	344.33	218.89	102.79	4.81	(33.70)	(8.21)	248.06	25.20	270.71	1,328.05
1975	(77.02)	(7.65)	145.83	186.61	391.91	(76.74)	(4.25)	(5.95)	18.69	143.00	286.28	289.96	1,290.67
1976	204.45	128.56	95.14	307.52	190.57	54.09	(67.68)	(37.94)	226.25	247.49	58.62	261.65	1,668.72
1977	173.87	109.30	79.29	220.59	208.41	104.21	19.82	54.93	63.71	230.22	60.88	275.24	1,600.47
1978	236.16	28.32	89.76	263.91	163.67	159.42	(48.42)	(34.26)	(22.37)	112.70	(71.08)	164.24	1,042.05
1979	225.12	25.77	410.03	(60.88)	127.43	(32.00)	35.11	77.87	87.22	150.93	153.48	69.38	1,269.46
1980	129.97	40.21	120.06	364.72	243.81	146.40	130.82	76.17	165.65	116.67	164.52	95.99	1,794.99
1981	217.76	168.49	218.32	124.31	336.12	40.49	37.38	63.43	154.61	208.70	174.43	79.57	1,823.61
1982	68.24	(4.81)	62.01	333.01	331.31	31.43	94.58	(24.07)	99.11	37.38	250.32	190.29	1,468.80
1983	492.71	65.41	365.00	236.73	138.19	55.78	117.23	272.69	74.19	17.84	137.62	124.88	2,098.27

# Newfoundland and Labrador Hydro

## LOWER SALMON MONTHLY INFLOWS (m<sup>3</sup> X 10<sup>6</sup>)

<u>Year</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEPT</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
1984	209.54	286.28	136.49	246.64	413.14	130.26	38.23	188.31	126.86	39.93	34.55	134.22	1,984.45
1985	27.75	17.56	74.47	154.04	351.98	301.29	161.97	(26.05)	84.38	(14.44)	33.98	77.59	1,244.52
1986	283.17	122.90	65.41	560.11	27.18	65.70	54.09	(13.31)	65.41	96.56	88.63	71.36	1,487.21
1987	60.70	81.42	139.81	500.44	116.78	20.01	11.52	(62.09)	(12.07)	87.50	301.92	116.08	1,362.02
1988	43.50	161.22	315.83	357.08	176.46	156.83	63.86	8.10	(3.06)	84.91	200.99	54.42	1,620.14
1989	80.37	56.38	87.05	294.06	182.43	31.18	29.58	53.49	123.94	119.39	144.14	30.66	1,232.67
1990	77.42	92.63	60.71	566.28	240.04	75.15	52.45	(49.21)	29.14	178.99	181.07	275.38	1,780.05
1991	25.82	118.99	230.18	239.86	268.74	37.27	(3.03)	(25.36)	107.70	204.99	270.10	27.68	1,502.94
1992	79.50	19.33	321.65	231.22	330.19	174.39	46.88	(36.00)	91.67	155.84	61.19	129.77	1,605.63
1993	52.56	189.28	137.58	455.24	315.41	71.78	106.16	108.84	25.03	192.84	243.96	370.75	2,269.43
1994	138.39	83.24	253.59	436.27	320.75	96.23	35.51	(4.44)	66.22	75.94	173.48	50.52	1,725.70
1995	206.72	62.97	231.74	349.36	191.38	78.60	43.83	60.04	153.49	143.76	288.89	184.46	1,995.24
1996	127.23	324.36	198.54	131.50	119.99	58.60	214.44	31.28	117.37	143.94	127.31	239.60	1,834.16
1997	232.97	75.13	48.33	226.18	377.05	98.39	48.14	72.58	200.50	80.37	183.23	92.36	1,735.23
1998	97.07	120.17	249.76	453.28	180.03	74.23	88.35	49.09	188.93	88.42	142.60	155.48	1,887.41
1999	219.72	368.37	307.68	279.14	176.02	70.09	22.67	62.25	117.54	188.62	150.35	149.72	2,112.17
2000	260.39	134.51	247.33	251.89	168.48	56.22	193.62	88.95	42.89	339.41	232.46	204.46	2,220.61

# Newfoundland and Labrador Hydro

## CAT ARM

MONTHLY INFLOWS (m<sup>3</sup> X 10<sup>6</sup>)

<u>Year</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEPT</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>Total</u>
1930	73.49	8.91	25.71	33.84	239.06	288.89	51.42	42.32	73.10	34.43	74.87	85.02	1,031.06
1931	28.21	31.71	23.97	123.45	207.36	88.52	36.41	30.26	73.84	69.70	73.18	22.75	809.36
1932	12.97	18.35	36.10	133.07	208.65	143.49	60.37	33.60	65.54	83.96	56.74	59.69	912.53
1933	57.87	54.46	29.12	57.18	221.01	442.07	129.39	22.68	57.10	113.39	76.99	31.93	1,293.19
1934	21.24	45.43	24.35	204.93	290.79	132.92	52.56	28.74	25.54	36.48	87.12	31.93	982.03
1935	54.46	25.18	13.73	109.73	187.87	223.79	89.57	54.15	55.93	79.26	62.02	82.82	1,038.51
1936	25.03	21.44	16.00	46.02	222.30	189.36	82.29	26.92	48.37	66.52	68.11	62.50	874.86
1937	34.58	13.70	13.05	3.74	358.89	85.80	40.20	35.80	44.63	78.12	102.17	48.54	859.22
1938	9.48	51.04	21.24	69.95	165.64	95.05	50.59	26.39	35.30	67.96	53.07	43.91	689.62
1939	19.19	53.09	54.46	47.86	195.75	379.17	140.92	32.16	39.49	86.84	50.72	25.56	1,125.21
1940	7.81	4.55	20.02	44.04	310.28	199.79	50.59	18.43	45.14	50.59	56.00	46.57	853.81
1941	40.20	19.93	31.10	47.63	339.78	168.67	84.34	57.64	55.71	84.87	61.73	21.84	1,013.44
1942	31.85	66.79	45.43	25.69	386.35	143.93	50.59	32.61	42.35	57.94	74.87	17.29	975.69
1943	8.34	20.99	42.47	22.53	167.77	216.74	43.91	39.51	61.36	80.47	75.01	39.14	818.24
1944	11.68	24.04	26.47	11.30	184.00	308.12	56.66	27.23	97.99	121.43	87.56	22.90	979.38
1945	35.49	14.04	16.91	71.20	334.85	200.08	98.75	23.51	26.28	62.12	115.23	90.25	1,088.71
1946	39.82	53.91	73.50	83.24	338.30	90.00	51.73	21.69	17.18	30.49	36.92	22.30	859.08
1947	22.30	42.27	36.86	11.30	237.19	304.05	59.77	27.91	23.86	42.40	30.02	6.37	844.30
1948	9.48	16.72	25.49	18.42	381.46	160.90	25.41	20.03	47.42	24.27	33.84	22.30	785.74
1949	60.53	20.35	72.29	60.56	245.91	226.02	17.45	46.42	50.06	43.16	93.00	65.16	1,000.91
1950	94.74	41.24	18.74	72.97	263.43	88.53	58.03	28.44	10.64	22.07	40.59	40.28	779.70
1951	33.38	55.97	39.59	155.69	157.47	45.80	42.48	45.97	40.08	52.11	109.96	48.55	827.05
1952	30.49	45.29	40.05	20.70	337.54	199.96	22.76	26.17	19.09	33.00	92.12	22.53	889.70
1953	42.33	37.75	4.70	144.83	175.52	79.35	30.34	19.72	32.67	51.35	53.73	64.47	736.76
1954	26.62	25.97	70.09	45.58	216.48	116.86	18.43	50.75	16.15	41.04	100.86	37.40	766.23
1955	55.14	6.99	14.64	12.11	117.04	112.53	15.55	32.62	72.60	65.76	32.15	11.91	549.04
1956	63.03	4.93	3.49	28.04	107.18	259.12	33.53	29.58	45.80	35.35	57.77	55.07	722.89
1957	11.91	4.25	7.89	7.56	97.55	244.22	57.80	27.91	45.80	84.35	60.34	84.35	733.93
1958	33.60	5.34	26.02	67.53	117.04	55.35	20.48	43.24	74.58	60.30	82.07	41.49	627.04
1959	9.86	4.45	2.35	61.37	171.96	156.06	38.15	23.74	21.87	50.97	63.13	86.09	690.00
1960	20.71	21.79	9.94	17.76	280.35	150.48	12.89	16.00	25.32	58.10	31.42	25.11	669.87
1961	5.84	2.47	4.70	13.21	236.73	106.36	55.22	33.68	32.89	101.41	47.13	23.29	662.93
1962	16.92	18.91	20.56	72.67	191.83	223.08	33.45	44.22	15.71	33.00	125.67	37.02	833.04
1963	84.95	17.68	3.34	34.35	279.67	113.41	39.37	40.96	61.66	44.30	66.58	55.30	841.57

# Newfoundland and Labrador Hydro

## CAT ARM

MONTHLY INFLOWS (m<sup>3</sup> X 10<sup>6</sup>)

<u>Year</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEPT</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>Total</u>
1964	6.22	11.85	4.40	80.31	222.25	256.99	77.98	32.54	26.87	43.39	47.71	30.57	841.08
1965	17.60	2.81	39.37	17.03	143.44	253.84	32.92	42.48	25.25	73.27	72.23	15.25	735.49
1966	11.91	10.89	12.89	43.68	198.51	233.36	21.16	30.72	37.36	100.88	50.94	30.49	782.79
1967	15.25	4.25	3.11	2.20	204.95	206.56	28.22	28.14	49.03	64.70	80.16	26.02	712.59
1968	9.03	31.24	20.86	69.37	193.80	165.75	23.29	23.89	45.36	48.77	47.49	42.02	720.87
1969	22.22	65.09	18.13	15.56	246.60	305.81	19.80	42.55	28.77	49.00	90.58	112.34	1,016.45
1970	29.51	10.76	5.01	7.19	280.88	88.38	13.43	11.76	23.64	45.44	74.58	28.67	619.25
1971	10.39	6.78	6.42	141.97	358.17	71.57	30.95	48.77	38.02	81.16	73.70	19.11	887.01
1972	9.71	6.23	28.29	22.54	188.80	318.65	50.90	32.22	56.89	75.32	36.78	34.51	860.84
1973	6.37	9.45	14.72	17.84	300.38	174.41	77.07	65.84	32.74	38.68	48.37	77.75	863.62
1974	7.74	2.88	3.64	11.23	115.45	302.80	42.33	21.24	26.43	56.97	42.80	34.51	668.02
1975	6.83	2.12	5.54	28.70	245.76	169.86	12.14	36.33	35.45	74.41	89.85	49.53	756.52
1976	42.63	35.22	57.80	99.68	242.65	88.38	6.83	33.15	29.95	98.30	76.27	41.04	851.90
1977	23.29	8.50	7.96	43.75	227.03	432.65	92.08	44.60	48.81	132.67	38.24	59.39	1,158.97
1978	95.19	6.10	2.65	7.85	303.56	131.40	71.60	24.05	26.21	38.61	60.71	11.98	779.91
1979	56.74	36.11	142.00	41.40	335.49	20.19	45.51	62.12	71.28	73.96	100.05	44.22	1,029.07
1980	14.49	5.96	5.46	43.82	257.44	229.39	63.49	69.10	61.44	86.24	145.71	43.69	1,026.23
1981	12.44	41.59	25.41	81.63	321.46	88.89	13.35	52.26	43.82	148.67	44.85	92.92	967.29
1982	8.19	3.77	3.26	14.09	286.65	277.40	93.22	27.61	67.88	46.57	88.09	23.82	940.55
1983	15.78	5.82	26.78	183.00	85.41	23.56	31.86	56.51	35.01	51.73	54.47	11.23	581.16
1984	16.80	20.00	33.40	23.40	381.90	171.40	20.40	18.50	25.90	26.00	41.77	36.48	815.95
1985	9.80	11.70	6.20	20.65	197.64	276.91	37.97	14.93	33.91	42.31	45.10	21.56	718.68
1986	32.99	30.34	8.25	207.42	167.03	59.68	10.17	33.84	22.80	45.83	30.19	22.80	671.34
1987	11.16	9.62	12.98	201.50	209.98	73.28	8.19	13.85	37.12	65.77	89.65	40.19	773.29
1988	13.93	1.62	54.33	57.69	377.00	101.53	29.57	18.49	21.80	57.96	70.57	51.47	855.96
1989	17.63	(3.69)	0.84	56.92	281.99	69.60	6.54	61.81	27.33	86.46	63.54	24.72	693.69
1990	6.24	18.48	3.32	41.16	209.56	217.95	33.99	38.25	24.55	88.39	71.59	55.39	808.87
1991	20.95	20.06	17.96	(3.70)	244.82	222.01	44.69	14.58	66.76	61.78	33.39	39.84	783.14
1992	(5.95)	12.51	9.63	32.06	250.92	128.69	34.51	65.46	41.60	77.64	37.16	21.72	705.95
1993	11.20	(0.13)	14.77	62.82	316.39	94.92	72.65	36.04	52.67	54.76	59.28	61.80	837.17
1994	36.97	7.56	21.01	52.50	244.06	316.75	50.75	25.05	49.05	34.60	84.69	24.00	946.99
1995	27.83	12.83	19.18	65.27	244.70	187.56	28.20	32.92	47.41	57.62	84.27	45.85	853.64
1996	50.90	80.83	26.84	96.92	231.75	105.64	59.59	3.90	17.28	39.03	50.76	73.99	837.43
1997	27.98	9.70	(1.06)	10.79	258.86	197.75	66.77	36.74	57.77	22.70	49.37	24.26	761.63

# Newfoundland and Labrador Hydro

## CAT ARM

MONTHLY INFLOWS (m<sup>3</sup> X 10<sup>6</sup>)

<u>Year</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEPT</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>Total</u>
1998	14.29	8.21	59.04	73.72	297.22	41.94	16.05	50.20	129.54	55.84	54.39	48.24	848.68
1999	62.42	42.96	41.38	61.57	319.36	51.60	32.07	67.01	56.92	66.78	107.59	34.81	944.47
2000	50.79	18.13	40.60	86.06	252.69	173.51	52.49	35.07	31.86	93.75	75.28	38.81	949.04



# Newfoundland and Labrador Hydro

## HINDS LAKE MONTHLY INFLOWS (m<sup>3</sup> X 10<sup>6</sup>)

<u>Year</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEPT</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>Total</u>
1927	112.09	15.27	16.98	51.09	170.64	72.37	39.37	27.69	58.14	81.69	99.38	62.19	806.90
1928	28.36	15.61	14.03	57.39	177.63	28.69	45.35	23.06	8.29	82.23	40.15	77.59	598.38
1929	39.67	16.91	16.98	42.20	211.59	81.75	45.59	22.61	54.02	78.34	60.39	20.33	690.38
1930	43.39	18.92	24.64	56.95	174.74	80.95	36.48	30.35	33.02	32.92	55.62	73.87	661.85
1931	38.60	28.50	15.86	130.87	135.39	42.12	33.99	17.52	41.91	54.53	49.48	24.80	613.57
1932	9.32	13.40	34.58	175.63	125.83	43.68	31.93	25.10	66.20	55.15	36.03	37.10	653.95
1933	44.06	44.32	26.92	63.87	217.30	106.43	53.54	19.18	30.74	111.34	86.99	31.71	836.40
1934	16.69	36.17	21.61	208.89	159.66	37.22	30.86	18.21	9.18	18.21	83.23	28.66	668.59
1935	54.53	19.60	10.02	72.96	150.85	107.96	47.41	58.26	45.88	65.30	74.05	62.81	769.63
1936	19.34	17.39	12.59	83.46	161.53	60.99	33.67	11.92	34.86	38.92	66.28	57.18	598.13
1937	33.29	10.69	9.32	39.19	185.83	36.42	13.58	7.58	25.17	56.19	87.35	47.62	552.23
1938	14.65	16.45	16.45	84.11	122.86	40.07	31.93	15.99	19.67	53.09	48.44	45.29	509.00
1939	18.35	25.69	21.91	35.02	183.39	109.80	76.68	37.93	20.32	64.76	60.11	34.74	688.70
1940	12.96	13.98	23.97	72.08	189.98	53.86	28.61	13.12	30.46	26.46	60.55	44.14	570.17
1941	18.13	9.80	13.12	65.32	216.76	52.25	52.95	71.83	48.81	63.48	70.68	30.80	713.93
1942	35.41	39.05	40.12	53.73	233.90	41.11	37.02	35.27	35.02	43.60	72.29	18.59	685.11
1943	10.39	13.69	29.27	41.63	160.25	59.23	23.28	25.02	51.30	47.49	69.52	27.83	558.90
1944	12.96	11.93	22.53	27.09	181.65	134.91	35.73	25.63	92.69	112.41	102.02	34.20	793.75
1945	37.77	16.38	17.97	110.76	203.64	54.74	35.86	18.05	15.86	43.07	114.72	55.74	724.56
1946	21.32	24.05	39.43	93.52	143.19	28.25	23.73	14.49	19.31	19.18	40.88	28.66	496.01
1947	12.75	32.34	21.16	17.24	258.47	109.72	24.27	10.69	6.09	35.27	21.95	14.70	564.65
1948	24.05	13.63	10.61	40.23	254.53	52.77	33.08	14.20	47.49	14.87	27.24	19.04	551.74
1949	52.50	9.24	68.03	160.96	161.03	55.86	16.31	38.97	40.95	24.56	95.49	67.04	790.94
1950	30.43	15.48	15.03	61.07	182.93	41.32	37.85	22.23	1.97	11.30	32.01	39.51	491.13
1951	33.29	59.32	38.46	148.99	59.01	36.34	33.29	35.65	28.05	32.22	112.23	46.04	662.89
1952	34.74	41.02	20.17	48.44	211.83	80.46	34.20	24.27	6.82	16.53	89.61	41.19	649.28
1953	47.62	65.63	21.16	141.00	64.76	57.91	18.72	14.65	18.43	46.63	34.34	62.41	593.26
1954	24.19	41.25	82.98	66.80	120.74	40.23	20.33	59.30	12.91	43.60	59.51	105.13	676.97
1955	62.81	28.43	33.00	27.16	124.01	52.77	17.60	60.61	59.30	63.26	48.16	22.31	599.42
1956	98.91	19.87	13.79	60.03	154.03	95.57	25.79	21.61	23.56	22.15	48.37	70.92	654.60
1957	41.03	21.51	18.88	17.63	115.36	89.68	25.26	19.18	37.66	63.32	48.00	79.41	576.92
1958	56.65	26.44	28.20	63.27	79.04	47.28	41.78	42.77	61.79	51.88	75.97	50.35	625.42
1959	29.19	21.36	13.04	49.53	129.61	61.43	21.24	14.20	26.65	29.81	60.39	74.94	531.39
1960	36.77	26.68	18.59	36.55	170.64	48.60	18.27	8.49	8.58	39.05	49.48	38.84	500.54

# Newfoundland and Labrador Hydro

## HINDS LAKE MONTHLY INFLOWS (m<sup>3</sup> X 10<sup>6</sup>)

<u>Year</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEPT</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>Total</u>
1961	29.06	12.68	13.34	21.95	151.62	69.00	20.49	12.29	11.22	49.31	52.98	46.87	490.81
1962	23.81	8.98	19.34	79.70	137.27	113.48	46.42	30.35	17.47	52.18	111.64	51.96	692.60
1963	66.67	34.18	18.13	34.86	163.97	63.12	32.38	31.10	38.31	44.60	55.94	66.67	649.93
1964	23.97	19.64	21.16	63.87	153.50	84.84	50.59	37.23	28.49	46.87	59.15	40.87	630.18
1965	30.80	12.12	41.49	21.64	107.70	175.27	36.10	14.95	10.42	31.39	74.65	38.92	595.45
1966	15.99	12.00	12.13	33.33	124.92	99.66	24.56	23.65	26.28	33.37	34.14	41.78	481.81
1967	21.78	11.64	18.96	27.37	160.20	107.96	26.38	20.33	20.19	35.94	67.24	60.75	578.74
1968	33.53	30.52	50.81	80.38	121.04	62.16	42.77	15.94	34.78	35.49	55.26	67.66	630.34
1969	30.86	91.25	43.02	33.46	185.88	89.99	19.63	14.12	26.41	52.26	59.02	114.37	760.27
1970	34.04	26.37	21.45	24.81	192.58	75.82	30.48	27.16	41.19	25.26	61.15	67.28	627.59
1971	21.16	43.42	26.25	198.39	126.82	39.79	37.77	30.80	27.24	47.78	73.92	54.08	727.42
1972	27.75	16.66	29.06	49.25	201.15	141.13	44.89	14.87	15.47	86.00	83.15	58.34	767.72
1973	22.53	20.83	24.72	42.72	220.24	95.93	61.90	64.47	20.76	40.79	66.43	60.37	741.69
1974	25.47	13.09	15.62	34.14	147.74	149.43	35.94	15.70	20.19	57.48	45.52	61.58	621.90
1975	19.79	8.30	20.78	57.83	209.72	58.86	15.16	10.31	17.11	56.06	70.24	74.49	618.65
1976	60.00	51.72	35.94	109.80	154.41	51.61	15.09	9.78	8.15	46.04	91.01	58.40	691.95
1977	60.14	30.14	20.86	63.86	190.67	107.97	48.31	49.60	21.58	92.53	82.50	65.15	833.31
1978	84.49	25.76	13.50	24.81	214.11	74.20	24.73	8.87	16.59	22.60	22.61	14.94	547.21
1979	78.35	40.14	107.85	24.07	82.82	30.24	19.49	16.91	24.81	46.11	68.99	61.28	601.06
1980	29.46	10.89	10.45	93.57	126.69	58.06	60.80	41.25	53.91	91.60	98.76	38.03	713.47
1981	47.24	50.64	39.96	116.61	154.87	48.74	20.29	49.38	21.19	79.19	59.08	88.11	775.30
1982	26.15	15.63	19.93	74.36	287.94	68.00	39.86	16.43	28.13	43.59	53.18	38.66	711.86
1983	99.96	30.16	90.34	127.37	46.43	64.43	32.50	103.08	21.39	25.99	57.61	36.95	736.21
1984	22.87	44.65	39.90	60.49	223.70	81.80	23.30	40.52	31.13	18.89	26.70	44.75	658.70
1985	10.62	9.07	11.80	25.87	203.86	109.59	19.36	13.60	27.88	9.04	30.20	22.14	493.03
1986	77.37	27.97	10.63	214.27	39.71	46.50	12.53	19.93	16.40	25.27	29.22	17.19	536.99
1987	9.57	11.05	19.94	210.17	105.18	16.18	3.13	5.44	8.41	45.24	86.61	33.69	554.61
1988	19.83	17.28	74.02	73.65	206.93	65.32	44.69	18.88	14.72	44.17	64.98	30.63	675.10
1989	17.12	10.54	18.83	79.11	121.09	20.17	5.37	44.44	31.39	62.92	53.24	24.66	488.88
1990	21.42	16.65	23.28	109.90	167.79	58.27	32.21	24.87	16.23	47.49	64.19	79.70	662.00
1991	16.83	12.36	28.95	53.89	191.69	66.25	27.33	28.29	67.01	49.56	48.14	26.92	617.22
1992	18.47	12.39	37.65	40.39	220.41	65.51	20.88	42.75	29.17	60.67	30.23	34.70	613.22
1993	17.36	18.78	8.39	132.82	203.27	38.84	67.12	32.85	16.32	60.44	68.37	97.47	762.03
1994	44.29	16.90	33.43	147.84	206.06	63.40	65.27	23.43	42.05	34.52	83.01	25.38	785.58

**HINDS LAKE**  
MONTHLY INFLOWS (m<sup>3</sup> X 10<sup>6</sup>)

<u>Year</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEPT</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>Total</u>
1995	52.51	15.20	41.05	80.63	206.60	94.36	31.93	47.05	25.67	43.59	86.89	34.18	759.66
1996	63.20	131.61	56.41	75.53	63.20	30.20	59.01	10.18	36.18	54.53	51.30	79.46	710.81
1997	66.11	17.76	8.46	29.42	261.58	93.66	30.12	37.72	50.63	43.18	49.30	31.80	719.74
1998	22.18	32.46	87.52	110.06	177.44	31.96	46.50	55.78	120.83	59.85	56.07	43.32	843.97
1999	66.26	70.26	66.22	94.70	127.04	10.96	4.54	24.08	38.48	76.76	68.93	44.43	692.66
2000	53.86	29.06	62.84	130.61	134.46	36.99	32.86	30.96	18.59	87.38	71.22	53.11	741.94

# Newfoundland and Labrador Hydro

## PARADISE RIVER MONTHLY INFLOWS (m<sup>3</sup> X 10<sup>6</sup>)

<u>Year</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEPT</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>Total</u>
1953	44.09	48.12	52.93	103.14	31.04	33.62	5.79	8.12	9.15	50.89	60.63	72.02	519.54
1954	51.99	89.12	78.64	58.32	47.03	22.76	19.85	24.08	7.75	39.69	45.88	84.69	569.80
1955	85.07	38.34	46.50	49.43	35.46	61.53	27.56	26.65	21.51	70.92	89.09	40.79	592.85
1956	96.48	27.05	45.75	126.41	62.65	31.65	20.76	10.63	15.99	24.80	78.41	65.22	605.80
1957	57.32	12.00	52.55	57.80	37.47	9.88	6.83	24.27	71.67	42.08	48.73	83.41	504.01
1958	53.46	34.69	41.17	31.83	24.80	26.31	34.18	30.86	48.55	36.56	65.78	54.75	482.94
1959	24.43	27.22	23.70	92.46	58.60	25.79	9.75	12.91	24.73	26.46	87.30	53.27	466.62
1960	25.90	54.43	28.12	80.38	83.41	15.66	7.39	2.73	3.60	17.41	43.03	33.45	395.51
1961	29.41	11.25	53.27	84.63	91.15	17.21	3.40	0.83	0.31	10.53	26.49	24.80	353.28
1962	25.90	139.39	119.80	90.15	20.57	16.51	27.94	9.45	16.36	49.07	88.91	59.17	663.22
1963	137.24	32.20	25.36	108.81	70.55	40.54	22.98	17.81	53.71	33.27	39.29	61.74	643.50
1964	19.28	36.51	31.23	169.28	35.46	9.54	7.50	15.45	17.13	76.44	49.07	63.02	529.91
1965	36.02	21.41	76.98	89.97	58.26	34.32	31.23	8.22	7.44	14.20	68.09	32.70	478.84
1966	22.98	24.72	36.94	114.15	56.41	17.76	9.94	22.61	18.33	32.33	38.05	78.64	472.86
1967	40.60	55.59	37.12	35.93	158.19	19.73	8.54	15.08	10.29	29.94	55.13	53.46	519.60
1968	43.36	69.36	82.87	32.37	63.40	51.40	25.90	48.32	34.68	19.10	60.99	63.21	594.96
1969	18.08	115.01	67.07	66.15	37.85	14.62	4.85	6.03	36.44	45.56	73.98	111.15	596.79
1970	29.22	78.16	121.09	63.48	34.90	25.79	8.46	47.41	24.18	35.46	73.25	71.30	612.70
1971	30.51	97.08	62.84	138.88	34.90	16.07	23.33	18.24	13.27	19.10	78.59	49.07	581.88
1972	38.22	28.72	76.63	59.20	74.06	16.90	10.69	4.31	9.25	64.31	70.58	33.80	486.67
1973	24.99	73.69	30.32	68.82	84.53	39.29	37.12	59.17	25.25	50.89	77.35	46.12	617.54
1974	18.56	19.09	31.98	84.11	56.97	17.60	9.08	7.37	13.14	89.67	51.22	76.25	475.04
1975	13.47	6.10	17.17	121.10	67.44	5.99	3.48	6.48	12.78	58.42	65.78	71.49	449.70
1976	100.49	53.95	52.93	86.42	30.69	21.51	5.06	3.03	5.29	41.52	41.08	77.35	519.32
1977	66.69	29.05	47.41	73.07	54.40	25.61	8.17	11.73	20.97	38.41	28.80	83.41	487.72
1978	122.91	23.56	38.76	83.05	55.68	18.48	14.14	2.89	12.80	35.09	24.73	33.45	465.54
1979	78.64	43.98	79.92	26.31	33.80	4.85	2.89	18.19	15.37	54.40	63.66	51.45	473.46
1980	22.42	9.00	51.45	143.31	79.74	46.06	46.31	54.56	56.38	54.40	97.43	50.35	711.41
1981	70.36	54.94	59.54	64.90	58.79	16.04	52.18	27.37	43.91	117.96	66.69	60.64	693.32
1982	37.12	22.57	56.78	131.75	94.07	17.96	20.22	7.66	23.82	28.47	23.82	77.73	541.97
1983	108.96	30.05	134.13	57.26	34.74	33.07	12.96	33.45	53.34	23.70	55.83	38.76	616.25
1984	107.11	105.89	54.75	88.54	70.55	34.50	15.27	25.36	66.33	33.08	17.63	36.56	655.57
1985	17.54	12.97	23.89	64.02	104.19	32.71	42.08	15.48	32.37	8.30	26.85	22.79	403.19
1986	74.97	30.53	53.65	154.51	28.12	31.65	13.66	9.11	13.06	43.36	52.28	28.12	533.02

# Newfoundland and Labrador Hydro

## PARADISE RIVER MONTHLY INFLOWS (m<sup>3</sup> X 10<sup>6</sup>)

<u>Year</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEPT</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>Total</u>
1987	19.85	25.72	65.78	136.39	40.60	13.43	4.77	1.02	2.70	23.89	71.82	44.84	450.81
1988	14.62	151.03	164.64	90.69	40.79	49.61	41.89	4.45	5.47	28.28	52.10	28.47	672.04
1989	36.02	23.73	15.83	101.17	36.51	14.37	14.80	8.13	20.83	41.53	45.50	25.97	384.39
1990	38.84	36.98	36.72	155.10	44.74	65.86	10.93	6.13	23.81	59.60	60.96	74.15	613.82
1991	11.52	64.64	69.87	61.56	30.57	14.59	6.22	11.35	26.07	67.44	58.56	24.35	446.74
1992	37.43	10.31	98.43	67.99	67.55	15.15	18.40	5.94	21.34	46.07	30.44	37.80	456.85
1993	23.88	70.16	62.72	80.23	63.84	25.23	63.45	25.82	20.48	86.42	68.11	63.86	654.20
1994	49.47	12.42	112.58	116.95	49.69	26.01	12.83	17.23	13.26	23.61	49.33	25.18	508.56
1995	68.00	13.46	91.56	103.06	22.14	10.70	17.96	8.54	61.07	40.49	68.39	56.58	561.95
1996	42.82	64.65	43.33	29.11	27.01	18.15	44.59	8.00	29.84	37.49	60.44	63.12	468.55
1997	47.20	16.02	20.12	97.68	84.02	25.11	9.75	10.86	35.76	36.08	39.60	40.90	463.10
1998	32.96	43.30	52.90	136.59	24.33	12.29	11.08	21.80	50.98	36.50	60.93	35.40	519.06
1999	70.90	66.54	70.33	66.45	33.41	18.24	9.90	13.31	22.02	70.78	43.05	34.75	519.68
2000	97.59	23.80	69.56	49.06	35.15	13.96	14.55	36.38	13.70	62.60	52.14	52.78	521.27

1 Q. In each of the years 1992 through 2000, on how many occasions has Hydro  
 2 requested Newfoundland Power to operate its stand-by gas turbines and  
 3 diesel units? For how long on each occasion?

4  
 5

6 A. The following table shows the frequency and duration of requests made by  
 7 Hydro to Newfoundland Power to operate its standby gas turbines and diesel  
 8 units from 1992 through 2000.

9

<u>Year</u>	<u>Frequency</u>	<u>Duration</u>
1992	1	34 hours*
1994	6	1 hour 1.5 hours 1.5 hours 7 hours 0.5 hour 5 hours*
1995	2	0.5 hour* 4.5 hours*
1996	1	3 hours
1997	2	0.5 hour* 1.5 hours
1998	4	5 hours 0.5 hour 1.5 hours 3 hours*

10

11

\* Approximated based on fuel used and energy produced.

1 Q. In each of the years 1992 through 2000, on how many occasions has Hydro  
2 interrupted Stephenville ACI pursuant to its interruptible contract? For how  
3 long was power interrupted on each occasion?

4

5

6 A. Please refer to table below:

7

**Newfoundland & Labrador Hydro  
Interruptible B Interruptions**

<b>Season</b>	<b>Interruptions</b>	<b>Date</b>	<b>Duration (hr:min:sec)</b>
1993/1994	1	12/16/1993	5:15:00
1993/1994	1	12/30/1993	4:15:00
1993/1994	1	01/17/1994	5:45:00
1993/1994	1	02/09/1994	8:45:00
1993/1994	1	02/13/1994	1:15:00
1994/1995	1	12/10/1994	2:15:00
1994/1995	1	12/11/1994	8:00:00
1994/1995	1	02/14/1995	8:30:00
1995/1996	0		
1996/1997	0		
1997/1998	0		
1998/1999	0		
1999/2000	0		
2000/2001	0		

8

- 1 Q. 1. Does Hydro plan to renew or extend its interrupted/curtailable power  
2 arrangement with ACI – Stephenville when it expires?  
3 2. If not, why not?  
4 3. If not, what does Hydro propose to replace the lost capacity?  
5 4. If not, what is the anticipated cost per kilowatt of the alternate source  
6 of energy?

7

8

- 9 A. Hydro has not yet decided if it will seek to renew the interruptible contract  
10 with ACI Stephenville. Prior to expiration of the contract in 2003, Hydro will  
11 review the need and value of such a contract based on the load requirements  
12 and the sources available at that time.



1 Q. How does Hydro calculate “long-term average” hydraulic energy production  
2 from Hydro’s generating plants? How many years experience is included in  
3 the average?

4  
5

6 A. Please refer to NP-44 for the calculation method.

7  
8

The following records and years of experience are used in the average:

9

	<b>Inflows</b>	<b>Spills</b>	<b>Fisheries Compensation</b>	<b>Conversion Factor</b>
Bay d’Espoir	50	25	25 <sup>1</sup>	9
Upper Salmon	50	17	Constant	8
Hinds Lake	73	19	Constant	8
Cat Arm	70	15	None	8
Paradise River	47	not applicable	None	11

10  
11  
12  
13

Note 1: Fisheries Compensation Releases for the Grey River and White Bear River are dependent on the river flows and are therefore variable, as a result an historic average release is used.

1 Q. Provide the lowest historic inflow sequence experienced in Hydro's 50 years  
2 of records? In what year did that occur?

3

4

5 A. There are many low inflow sequences of various lengths. The longest low  
6 inflow sequence for the 50 years of hydrological record took place for the  
7 period June 1959 through to March 1962 and it dictates our reservoir  
8 minimum storage targets. It is defined by the period in which our reservoirs  
9 will go from the maximum storage level to empty while still maintaining firm  
10 energy production output from the hydroelectric plants.

1 Q. What was the total thermal production in each of 1992 - 2000, the amount of  
2 energy purchased from NV6S (*sic*) in each of those years, the average cost  
3 of No. 6 fuel/kWh generated from thermal generation in each of those years  
4 and the power purchase costs of energy purchases from NV6S (*sic*) in each  
5 of those years?

6  
7

8 A. For the amount and the costs of energy purchased from NUGS please refer  
9 to the following table:

10

**NUGS Power Purchases**

<u>Year</u>	<u>kWh</u>	<u>Cost</u>
1998	29,241,763	\$2,165,694
1999	156,165,064	\$10,386,362
2000	160,876,838	\$10,909,592

11

12 For total thermal production in 1992-2000 please refer to NP-45.

13

14 For the average cost of No. 6 fuel/kWh generated from thermal generation  
15 please refer to the response to IC-24(Rev).

- 1 Q. What is Hydro's long-term average production from hydraulic generation?  
2 How is it calculated?  
3  
4  
5 A. Hydro's long-term average production is the same as the annual average  
6 energy capability. Please refer to the response to NP-44.

- 1 Q. How is Hydro's long-term average production from hydraulic generation  
2 calculated?  
3  
4  
5 A. Please refer to the response to NP-44.

1 Q. Has Hydro's long-term average production from hydraulic generation been  
2 adjusted to reflect the changes at Bay d'Espoir referred to at pages 3 - 4 of  
3 the evidence of R. J. Henderson?

4

5

6 A. Yes, the conversion factor used for Bay d'Espoir is the average for the years  
7 1991 to 1999. The runner replacements were completed over the period  
8 1993 to 1996 and the impact of the new runner efficiencies is reflected in the  
9 conversion factor experience over that period.

1 Q. What are the forecast cost implications for the Industrial Customers and  
2 Newfoundland Power of the change in assignment of the 138 KV and 66 KV  
3 transmission lines and associated terminal station equipment connecting  
4 Hawkes Bay, St. Anthony and Roddickton generation from Hydro Rural to  
5 Common?  
6

7 A. The cost implications are as follows:  
8

9	Newfoundland Power	\$18,000 increase
10	Island Industrial Customers	\$1,386,000 increase

11

12 Note that these numbers do not incorporate any changes to revenues, or any  
13 related impacts associated with interest and return on rate base, from those  
14 filed in Exhibit JAB-1.

1 Q. Provide a chart showing the approved interest coverage ratio for the years  
2 1992 - 2001 and the actual interest coverage ratio achieved or, in the case of  
3 2001, forecast together with the dollar of such interest coverage ratio.

4  
5

6 A. In 1992, the PUB recommended Hydro be allowed to earn an interest  
7 coverage of 1.08 times gross interest and recommended that there be no  
8 interest coverage cap.

9

10 Please refer to response to IC-105 for Hydro's interest coverage ratios for  
11 1992 - 2000.

12

13

14

15

16

	<u>Margin</u>	<u>Interest Coverage</u>
2001 Estimate excluding recall sales	13,581	1.14



1 Q. Do the frequency converters at Grand Falls and Corner Brook play any role in  
2 voltage control by supplying reactive power or otherwise?

3

4

5 A. By the nature of the island interconnected system, there is ample reactive  
6 power capability on the central and western portions of the system, and as a  
7 result, the frequency converters play an insignificant role in voltage support  
8 for these portions of the system. Furthermore, due to the geographical  
9 location of the frequency converters, they play virtually no role in supporting  
10 voltages on the eastern portion of the system.

11

12 The central and western portions of the bulk system do experience high  
13 voltages during periods of very light loads. In these instances, one of the  
14 options available to Hydro for regulating system voltage is to adjust the  
15 frequency converter's voltage. In practice however, the impacts of the  
16 voltage regulating capability of the frequency converters is limited. For  
17 example, if the Grand Falls frequency converter were to be off during  
18 extremely light load cases (total utility load of around 250 MW, and no  
19 industrial load), voltages on the central and western portions of the system  
20 would be between 0.19% and 0.48% higher than if the Grand Falls frequency  
21 converter were on. Of the measures available to Hydro to mitigate high  
22 voltage conditions, use of the frequency converters to control voltages is  
23 among the least significant.

1 Q. Is it Hydro's intention to change the monthly rate stabilization plan report to  
2 include the calculation for and the allocators used to allocate the hydraulic  
3 variation, the fuel price variation and the fuel component of the load  
4 variation?

5

6

7 A. Hydro is not proposing to change the monthly rate stabilization report.

1 Q. After the Board has made its decision, is it Hydro's intention to circulate to all  
2 interveners a revised Cost of Service reflecting the Board's orders?

3

4

5 A. Yes, a revised Cost of Service will be filed with the Board after this  
6 application.

1 Q. Is it Hydro's intention to issue to each Industrial Customer an actual Cost of  
2 Service (in the same format as in Brickhill's evidence) at the end of each  
3 calendar year?

4

5

6 A. It is not Hydro's intention to issue to each Industrial Customer an actual Cost  
7 of Service (in the same format as in Brickhill's evidence) at the end of each  
8 calendar year.

1 Q. Confirm the extra net capacity and firm capability assumed for Deer Lake in  
2 Schedule XII of H.G. Budgell, and confirm that this explains why this  
3 schedule is not otherwise consistent with the combination of Schedule XI and  
4 X. (If Deer Lake does not explain the difference noted, explain this  
5 difference).

6

7 A. The continuation of the 60 Hz turbine upgrade program at Deer Lake does  
8 explain the difference between the net capacity and firm capability numbers  
9 in Schedule XII and the combination of those numbers in Schedules X and  
10 XI.

11

12 Hydro has assumed, based on information from the customer, that the  
13 remaining three 60 Hz turbines will be upgraded by the Fall of 2003 with  
14 additional net capacity of 0.5 MW per unit and additional firm capability of 4.7  
15 GWh per unit.

- 1 Q. Indicate the impact on COSS for the 2002 test year Island Interconnected  
2 System costs assigned to each rate class due to changing the cost  
3 assignment of the 138 kV and 66 kV transmission lines and associated  
4 terminal station equipment connecting NP's Port-aux-Basques system to the  
5 Bottom Brook Terminal Station, as described in the evidence of K. G. Budgell  
6 (*sic*) at page 20, lines 16-20. Explain fully the rationale for this change in cost  
7 assignment..  
8  
9
- 10 A. Refer to IC-88. Refer to IC-129 for the rationale for this change in cost  
11 assignment.

1 Q. Energy Policy Review and implementation of financial targets:

2

3 (1) D.W. Osmond notes (at page 5) that in 1998 the Government  
4 announced its intention to review the structure of the electric utility  
5 industry within its Energy Policy Review (EPR), and that it would be  
6 premature to commence a process to implement long-term financial  
7 targets with respect to a debt-to-equity ratios of 60:40 until this EPR is  
8 completed and policy direction received. Indicate any information  
9 available to Hydro as to the status of the EPR and the likely date when  
10 it may be completed and a policy direction received.

11

12 (2) Hydro proposes a temporary 3% return on equity (ROE) for this  
13 application, and asks the Board to approve a “normal financial target”  
14 of a ROE of 11% to 11.5%. Indicate when, and under what  
15 conditions, Hydro would expect the normal ROE to apply for rate  
16 setting purposes.

17

18 (3) Indicate under what, if any conditions, Hydro’s Board of Directors  
19 would limit or stop paying dividends in order to advance towards  
20 achievement of its financial targets with respect a debt/equity ratio.

21

22 A. (1) Hydro has no information on the status of the EPR.

23

24 (2) Hydro anticipates that at its next rate application it will be requesting  
25 that the normal ROE as recommended by its Financial Advisors at that  
26 time be approved by the Board for inclusion in Hydro’s rates.

27

- 1           (3)    The Board of Directors dividend policy requires that such dividend  
2                    payments shall only be made after due consideration has been given  
3                    by the Board of the impact of such payment on the debt/equity ratio of  
4                    the Corporation.



1 Q. With reference to Brickhill's Schedule 2.4A, line 21, column 2, provide a  
2 breakdown of the \$23,577,700 of "other related expense".

3

4 A. The \$23,577,700 is overhead, which is functionalized and classified on the  
5 basis of other related expenses – the subtotal of production, Transmission,  
6 Distribution and Accounting expenses. Total expense-related overhead is  
7 split between systems on the same basis. See Lines 103-114 of the O&M  
8 Summary, NP-132, for a further breakdown.