

1 Q. Re: p. B-7 Perform Feasibility Study- Wind Request for Proposals (\$200,000)

2

3 1.1 What is the deadline for receipt of proposals? Have any expressions
4 of interest been received to date? What is the current status of this
5 project?

6

7

8 A. 1.1 The deadline for the receipt of proposals to Hydro's Request for
9 Proposals (RFP) for a Wind Demonstration Project was January 31,
10 2001. Hydro received 10 submissions to its RFP. Currently a feasibility
11 study is underway by the successful proponent, The NeWind Group,
12 which is scheduled to be completed by June 2002.

1 Q. RE: p. B-23 Replace Two Air Compressors - Buchans (\$65,000)

2

3 15.1 What will be the number of running hours on each of these
4 compressors at the time of replacement? What are the sizes of these
5 compressors?

6

7 15.2 Provide a breakdown of the costs involved in replacing these
8 compressors.

9

10 A. 15.1 At the time of replacement, the estimated number of running hours on
11 each compressor will be approximately 21,000 hours.

12

13 The compressors are capable of delivering 14.5 LPS (30.8 CFM) at
14 6895 kPa (1000 psi).

15

16 15.2 Specific costs budgeted for purchasing and installing the compressors
17 are as follows:

18

19	Material Supply	\$36,000
20	Labour	12,000
21	Engineering	1,500
22	Project Management	1,500
23	Inspection & Commissioning	1,500
24	Corporate O/H, IDC, Esc., Contingency	<u>12,900</u>
25	Total	\$65,400

1 Q. RE: p. B-29 Replacement of Insulators – TL 211 (230 kV Massey Drive –
2 Bottom Brook)

3

4 21.1 What is the total purchase price of the 6700 insulators being
5 replaced? What is the labour cost? What other costs are involved?

6

7 A. 21.1 Specific costs budgeted for purchasing and installing the replacement
8 insulators are as follows:

9

10	Material Supply	\$220,000
11	Labour	130,000
12	Engineering	32,000
13	Project Management/Environment	62,000
14	Inspection & Commissioning	12,000
15	Corporate O/H, IDC, Esc., Contingency	<u>113,700</u>
16	Total	\$569,700

1 Q. RE: p. B-30 Replacement of Insulators – TL 228 (230 kV Buchans – Massey
2 Drive) (\$450,000)

3

4 22.1 What is the total purchase price of the 3700 insulators being
5 replaced? What is the labour cost? What other costs are involved?

6

7 A. 22.1 Specific costs budgeted for purchasing and installing the replacement
8 insulators are as follows:

9

10	Material Supply	\$160,000
11	Labour	120,000
12	Engineering	30,000
13	Project Management/Environment	46,000
14	Inspection & Commissioning	8,000
15	Corporate O/H, IDC, Esc., Contingency	<u>86,100</u>
16	Total	\$450,100

1 Q. RE: p.B-35 Provide Service Extensions – Central, Northern and Labrador
 2 (\$981,000)

3

4 26.1 What were the variances, by region, in the estimates and the actual
 5 expenditures for the provision of service extensions for 2000?

6

7 26.2 Using actual figures to June 30, 2001, what are the projected
 8 variances, by region, for the provision of service extension for 2001?

9

10 A. 26.1 The variance in budget and actual for the provision of service
 11 extensions for 2000 is given in the following table:

12

	Budget	Actual	Variance
Central	\$380,000	\$399,000	\$19,000
Northern	\$323,000	\$381,000	\$58,000
Labrador	\$311,000	\$582,000	\$271,000
Total	\$1,014,000	\$1,362,000	\$348,000

13

14 26.2 The projected variance in budget and actual for the provision service
 15 extensions for 2001 is given in the following table:

16

	Budget	Actual to June 30/01	Forecast	Variance
Central	\$390,000	\$278,000	\$500,000	\$110,000
Northern	\$320,000	\$189,000	\$320,000	--
Labrador	\$317,000	\$60,000	\$317,000	--
Total	\$1,027,000	\$527,000	\$1,137,000	\$110,000

17

1 Q. RE: p.B-36 Upgrade Distribution Systems – Central, Northern and Labrador
 2 (\$1,330,000)

3

4 27.1 What were the variances, by region, in the estimates and the actual
 5 expenditures for the upgrading of distribution systems for 2000?

6

7 27.2 Using actual figures to June 30, 2001, what are the projected
 8 variances, by region, for the upgrading of distribution systems for
 9 2001?

10

11 A. 27.1 The variance in budget and actual for the upgrading of distribution
 12 systems for 2000 is shown in the following table:

13

	Budget	Actual	Variance
Central	\$530,000	\$583,000	\$53,000
Northern	\$602,000	\$754,000	\$152,000
Labrador	\$159,000	\$416,000	\$257,000
Total	\$1,291,000	\$1,753,000	\$462,000

14

15 27.2 The projected variance in budget and actual expenditure for the
 16 provision of upgrading of distribution systems for 2001 is shown in the
 17 following table:

18

	Budget	Actual to June 30/01	Forecast	Variance
Central	\$541,000	\$108,000	\$461,000	(80,000)
Northern	\$602,000	\$106,000	\$602,000	--
Labrador	\$162,000	\$9,000	\$162,000	--
Total	\$1,305,000	\$223,000	\$1,225,000	(80,000)

19

1 Q. RE. p. B-41 Purchase and Install Voltage Regulators – Barchoix (\$112,000)

2

3 30.1 Over what period of time has the peak load level on the feeder
4 resulted in low voltage levels? How have these problems been
5 reflected in the reliability figures for the Barchoix area?

6

7

8 A. 30.1 The problem of low/imbalanced voltages on the feeder was identified
9 during system load flow simulations conducted in 2000. The
10 simulations indicate that primary voltage levels decrease to
11 approximately 110v, on a 120v base, at the source side of the existing
12 regulator bank on certain phases during peak and that load
13 rebalancing will not alleviate the problem. (Normal planning criteria
14 specifies that primary voltage magnitudes be at least 116v.) Four
15 customers are located within 1 km of this location. Past recloser and
16 regulator field data indicates that these problems have existed in
17 varying degrees since 1995. The data shows that the existing
18 regulator bank has in the past, operated to its design limit when
19 boosting feeder voltages, thereby preventing it from providing the
20 additional regulation required. The regulator bank's performance, and
21 the accompanying low voltages, were confirmed during subsequent
22 simulations based on past peak load readings. Low voltages are not a
23 component used when calculating reliability figures.

1 Q. RE: p. B-42 Replace Transformers – Burlington Substation (\$149,000)

2

3 31.1 Why is there an increase in transformer capacity at this time? What
4 information does the company have that indicates load growth in the
5 near future?

6

7

8 A. 31.1 There is a need to increase the capacity of these transformers to
9 offset the potential for failure. Units in this bank are overloaded, and
10 have been periodically overloaded by 120% - 140% since 1995. The
11 accumulative loss of insulating life resulting from the overheating
12 associated with overload, will lead to failure. Hydro has no specific
13 load forecast data for the section of line serviced by these
14 transformers, however, loads in this general area are not expected to
15 increase appreciably over the near future.

1 Q. RE: p.B-53 Replace 300 kW Diesel Unit No. 288 – Black Tickle (Previous
2 \$11,000; \$318,000)

3

4 36.1 To June 30, 2001, what units are in use at Black Tickle? What are
5 their ages, sizes, operating hours and scheduled replacement dates?

6

7 A. 36.1 To June 30, 2001 the following is the information on the units in Black
8 Tickle.

9

10

Engine Data for Black Tickle

Unit No.	kW	Purchase Date	Total Hours	Replacement Date
287	300	1978	83,787	To be reviewed in 2002 as part of 5 year capital plan
288	300	1978	86,132	2002
289	250	1978	79,195	To be reviewed in 2002 as part of 5 year capital plan

11

1 Q. RE: p.B-54 Replace 250 kW Diesel Unit No. 293 – Rigolet (Previous
2 \$11,000; \$301,000)

3

4 37.1 To June 30, 2001, what units are in use at Rigolet? What are their
5 ages, sizes, operating hours and scheduled replacement dates?

6

7 A. 37.1 To June 30, 2001 the following is the information on the units in
8 Rigolet.

9

10

Engine data for Rigolet

Unit No.	KW	Purchase Date	Total Hours	Replacement Date
223	250	1978	77,694	To be reviewed in 2002 as part of 5 year capital plan
2049	122	1998	4820	Unscheduled
293	250	1974	90,374	2002
2051	545	1998	14,993	Unscheduled

11

1 Q. RE: p. B-55 Upgrade – Fuel Storage - Nain (\$339,000)

2

3 38.1 Has a report been prepared on the condition of fuel storage in Nain,
4 and its inability to meet current Storage and Handling of Gasoline and
5 Associated Products? If so, provide a copy.

6

7 A. 38.1 There was no report prepared but there was an engineering review
8 completed. The review revealed that the dyke liner does not extend
9 underneath the three 144,000 liter capacity vertical storage tanks.
10 Also, probable deficiencies in the fuel storage system secondary
11 containment as evidenced by bulges in the dyke liner, apparent water
12 seepage into the dyke and loose connections between the dyke liner
13 and the tanks were noted.

14

15 These tanks were installed in 1974 prior to implementation of the
16 Gasoline and Associated Products Regulations in 1982.

1 Q. RE: p.B-56 Purchase and Install Fire Alarm System – Black Tickle (\$50,000)

2

3 39.1 Is there currently a fire alarm system at the Black Tickle generating
4 plant?

5

6 39.2 Are there currently in the Hydro system any plants at which there are
7 no fire alarm systems in place? What plans does the company have
8 for dealing with any such plants?

9

10 A. 39.1 There is no fire alarm system in the Black Tickle plant at present.

11

12 39.2 Besides Black Tickle, there are nine other isolated diesel plants which
13 do not have fire alarm systems. Hydro plans to install fire alarm
14 systems in these locations over the next five years.

1 Q. RE: p. B-59 Purchase Meters and Equipment – TRO System (\$172,000)

2

3 40.1 What were the actual expenditures for meters and equipment for
4 2000?

5

6 40.1 As of June 30, 2001, what are the projected expenditures for 2001?

7

8 A. 40.1 The actual expenditures for meters and equipment for 2000 totaled
9 approximately \$38,000.

10

11 40.1 As of June 30, 2001, the projected expenditures for meters and
12 equipment for 2001 is estimated at \$139,000.

1 Q. RE: p. B-72 Install Interactive Voice Response System - Hydro Place
2 (\$171,000)

3

4 50.1 Provide details of how this project will improve customer service. How
5 can this project be related to the "Key Findings" of the 1999 Customer
6 Satisfaction Survey?

7

8 A. 50.1 Interactive Voice Response (IVR) is a tool which can be used to
9 permit customers, who so desire, to access account balances,
10 frequently asked questions, outage information, etc. and, in the
11 process, free existing staff for the delivery of other customer service
12 functions. The key findings of the 1999 Customer Satisfaction Survey
13 does not address this system in particular but in an effort to improve
14 productivity Hydro will be investigating this system and any others it
15 might identify in an effort to improve its delivery of Customer Services.

1 Q. RE: RJH p. 3

2

3 52.1 Has the increased annual energy capacity on the Island Interconnect
4 (*sic.*) System resulted in additional capital expenditures for expansion
5 or upgrade of transmission lines or terminal stations? If so, please
6 provide details.

7

8 A. 52.1 The increased annual energy capability and increased net capacity
9 referenced in lines 7 to 18 of page 3 of R. J. Henderson's evidence did
10 not require additional capital expenditures for expansion or upgrade of
11 transmission lines or terminal stations.

12

13 The increase in capacity referenced in lines 20 to 22 of page 3 was as
14 a result of capital expenditures to interconnect the Roddickton and St.
15 Anthony system loads.

1 Q. RE: HGB 5:

2

3 54.1 In addition to Government of Newfoundland and Labrador economic
4 forecasts, what other sources of information and economic forecasts
5 are available to Hydro for inclusion in its econometric model and to
6 what extent if any is this information used?

7

8 A. 54.1 Hydro contracts with the Department of Finance for the provision of
9 Provincial economic forecast services and this forms the primary input
10 for the long-term load forecast process. Hydro could contract for
11 additional economic forecast services, but for budgetary reasons, and
12 due consideration of local analytical capabilities, Hydro is satisfied
13 with its present arrangements. Notwithstanding, Hydro notes short
14 term views of the economy as offered by various financial institutions
15 from time to time, monitors information from the Atlantic Provinces
16 Economic Council, and occasionally purchases, for a nominal fee,
17 Provincial economic forecast summaries that may be available from
18 such organizations as The Conference Board of Canada. This
19 information is used in a general sense, helping to ensure that a
20 reasonable set of assumptions continually form the basis for the work
21 undertaken by the Department of Finance on Hydro's behalf.

1 Q. RE: Revenue requirement

2

3 56.1 Provide details of all adjustments to revenue requirement related to
4 non-regulatory costs, the effect of export sales by Hydro to Hydro-
5 Quebec and Hydro's investment in subsidiary companies. (JCR, pg. 1,
6 line 26 to pg. 2, line 2)

7

8 56.2 Does Hydro allocate any administrative costs, including any portion of
9 Executive salaries, to the non-regulated export sales to Hydro-
10 Quebec?

11

12

13 A. 56.1 The details of all adjustments are contained in the attached
14 reconciliation of net operating income to revenue requirement.

15

16 56.2 The administrative effort associated with the non-regulated export
17 sales to Hydro-Quebec is not considered significant enough to warrant
18 separate tracking.

Newfoundland and Labrador Hydro
 Reconciliation of Net Operating
 Income to Revenue Requirement
 (\$ 000)

Line No.	Description	2002		
		Financial Statement	Revenue Requirement	Increase (Decrease)
1	Depreciation & amortization	31,790	31,790	0
2	Fuel			
3	Bunker "C"	100,585	100,585	0
4	Additives & Indirects	185	185	0
5	Environmental fee	102	102	0
6	Ignition	112	112	0
7	Gas Turbines	471	471	0
8	Diesel	6,323	6,323	0
9	Other		0	0
10	RSP	(25,490)	(25,490)	0
11	Total Fuels	<u>82,288</u>	<u>82,288</u>	0
12	Power Purchased	18,900	15,266	(3,634)
13	Other Costs			
14	Salaries	56,051	56,051	0
15	SEM	16,778	16,763	(15)
16	Office Supplies	1,939	1,939	0
17	Professional Services	4,340	4,340	0
18	Insurance	848	848	0
19	Equipment Rentals	1,558	1,558	0
20	Travel	2,375	2,375	0
21	Miscellaneous	4,267	4,458	191
22	Building Rentals and Maintenance	626	626	0
23	Transportation	1,923	1,923	0
24	Customer Costs	325	0	(325)
25	Loss (gain) on Disposal of Assets	791	791	0
26	sub-total	<u>91,821</u>	<u>91,672</u>	(149)
27	Cost Recoveries			
28	CF(L)Co	(1,910)	(1,910)	0
29	External		0	0
30	sub-total	<u>(1,910)</u>	<u>(1,910)</u>	0
31	Total Other Costs	<u>89,911</u>	<u>89,762</u>	(149)
32	Interest	92,784	93,584	800
33	Margin	<u>36,481</u>	<u>9,610</u>	(26,871)
34	Revenue requirement	<u><u>352,154</u></u>	<u><u>322,300</u></u>	<u><u>(29,854)</u></u>

Newfoundland and Labrador Hydro
 Adjusting Entries to Restate Actual 2002
 Net Operating Income to Revenue Requirement re COS
 (\$ 000)

Description	Debit	Credit
1. Margin	(26,871)	
SEM		(15)
Miscellaneous		(134)
Power Purchased		(3,634)
Interest	800	
Energy sales	29,854	
	3,783	(3,783)
Miscellaneous	325	
Customer Costs		(325)

Summary	Muskrat Falls	Donations/ Contributions	Reclass Entries	Hydro Quebec	Total
Power Purchased				(3,634)	(3,634)
Total Other Costs	(15)	(134)	0	0	(149)
Interest	0	0	0	800	800
Margin	15	134	0	(27,020)	(26,871)
Revenue Requirement	0	0	0	(29,854)	(29,854)

Nfld and Labrador Hydro
Eliminations from Revenue Requirements
For the Year Ended December 2002

PUB 56.1
Page 4 of 4

	<u>2002</u>
Contributions & Donations	193,500
Contributions	
Bay D'Espoir Street Lighting	(60,000)
Eliminations	<u>133,500</u>
Muskrat Falls	
SEM	<u>15,000</u>
	<u>15,000</u>
Hydro Quebec Recall	
Revenue	29,854,383
Interest avoided	800,000
Power Purchased - Interest Share	(240,542)
Power Purchased - Recall	<u>(3,393,937)</u>
	<u>27,019,904</u>

1 Q. RE: Return on Equity (ROE)

2

3 57.1 Provide a calculation of forecast average common equity for 2001 and
 4 2002 (JCR, Schedule XI). Include details on how net earnings related
 5 to export sales to Hydro-Quebec and other non-regulated items are
 6 treated in this calculation.

7

8 57.2 How are forecast dividends allocated between regulated earnings
 9 versus non-regulated earnings such as profit on export sales to Hydro-
 10 Quebec? Does Hydro have a policy with respect to payment of
 11 dividends from non-regulated earnings versus regulated earnings?

12

13 57.3 Provide calculations of rate of return on regulated average common
 14 equity using forecast earnings for 2001 and 2002 as per JCR,
 15 Schedule 1, line 41.

16

17 A. 57.1 The calculated forecast average common equity is as follows:

	Regulated	Export	CF(L)Co	Non-Regulated Expense	Total
Opening retained earnings 2001	267,616	32,437	228,475		528,528
Net Income	13,727	24,077	16,099	(147)	53,756
Dividends	(11,976)	(31,332)	(9,992)		(53,300)
Closing retained earnings 2001 / Opening retained earnings 2002	269,367	25,182	234,582	(147)	528,984
Net Income	9,610	27,020	17,774	(149)	54,255
Dividends	(70,147)	(26,637)	(8,116)		(104,900)
Closing retained earnings 2002	208,830	25,565	244,240	(295)	478,340

1 Cumulative net earnings, less dividends, related to export sales to
2 Hydro-Quebec and subsidiary companies are deducted from retained
3 earnings to arrive at forecast common equity. Net earnings from other
4 unregulated sales are included in forecast common equity.

5

6 57.2 Hydro's policy is to pay as dividends, 75% of corporate net operating
7 income net of recall revenues, plus 100% of net recall revenues. For
8 the purposes of this rate application, only the former were included as
9 an anticipated cash outlay for purposes of determination of the
10 revenue requirement.

11

12 57.3 The calculation of rate of return on regulated average common equity
13 is as follows:

	<u>2000</u>	<u>2001</u>	<u>2002</u>	
14				
15				
16	Retained earnings	267,616	269,367	208,830
17	Average retained earnings		268,507	239,085
18	Net income		13,727	9,610
19	Rate of return		5.1%	4.0%

20

21 The net income above includes unregulated sales to IOCC.

1 Q. RE: Interest Coverage

2

3 58.1 Provide a calculation of interest coverage for 2001 and 2002
4 incorporating earnings related to non-regulated activities such as
5 export sales to Hydro-Quebec (N.B. refer also to NP-2).

6

7 58.2 Which calculations of interest coverage does Hydro provide to
8 financial markets to be used in any assessment of Hydro's credit
9 rating?

10

11 A. 58.1 Interest coverage has traditionally been calculated on gross interest,
12 excluding the debt guarantee fee. On that basis, Hydro's interest
13 coverage is as follows:

14

	(\$000's)	
	2001	2002
15		
16		
17	102,197	107,934
18	5,637	6,301
19	(10,900)	(12,085)
20	96,934	102,150
21		
22	37,658	36,481
23		
24	1.39	1.36

25 *Interest Coverage* = Gross Interest + Net Income ÷ Gross Interest.

1 58.2 Hydro regularly meets with both Canadian and U.S. based rating
2 agencies to discuss the financial position of the Company. During
3 those discussions, Hydro's consolidated and unconsolidated financial
4 results are presented and reviewed.

1 Q. **RE: Return Applied to the Unamortized Balance of the Rate**
2 **Stabilization Plan**

3

4 65.1 What would be the effect on revenue requirement for 2002 of applying
5 the overall cost of capital to the unamortized balance of the Rate
6 Stabilization Plan? How does this differ from the effect on revenue
7 requirement of using the embedded cost of debt? What regulatory
8 precedents in North America support utilization of the weighted cost
9 of capital as the return to be applied to the unamortized balance of the
10 RSP? (KCM, p. 10, lines 18 - 27)

11

12 A. 65.1 The return applied to the unamortized balance of the RSP does not
13 affect revenue requirement.

14

15 Please refer to the response to NP-83. If the embedded cost of debt
16 of 8.0% had been applied, rather than the 7.4%, weighted average
17 cost of capital, net interest expense would have decreased by
18 \$539,000 and margin would have increased by the same amount, but
19 the return on rate base and total revenue requirement would remain
20 the same.

21

22 The Board's formula for translating the weighted average cost of
23 capital (WACC) to the return on rate base for Newfoundland Power as
24 set forth in Order No. P.U.36 (1998-99), pp. 63-66 is equivalent to
25 allowing a return on the unamortized balance of the RSP. That
26 formula adjusts the WACC to return on rate base effectively by the
27 ratio of invested capital to rate base. Hydro is proposing to apply the

- 1 WACC directly to its RSP balance, rather than indirectly through the
- 2 formula utilized for Newfoundland Power.