

1 Q. (a) Further to IC-73, in the April 2001 RSP Report, explain the \$696,000  
2 charge to the RSP under the heading Rural Change Adjustment.

3

4 (b) If the charge referred to in part (a) refers to a refund to Hydro Rural  
5 customers, justify:

6 (i) the refund; and

7 (ii) charging the refund to customers of Newfoundland Power  
8 through the RSP.

9

10 (c) If the charge referred to in part (a) refers to a refund to Hydro Rural  
11 customers, did Hydro request the Board's approval of the refund?  
12 Provide a copy of any documentation to or from the Board relating to  
13 the refund.

14

15

16 A. (a) The \$ 696,000 charge to the RSP under the heading Rural Change  
17 Adjustment is the net result of changes in the rural revenues during  
18 April, 2001 which Hydro recorded in its financial records in compliance  
19 with the recommendation in the Board's February, 1993 Report. An  
20 amount of \$773,000 was a result of a rebate given Hydro Rural  
21 Isolated and Island Interconnected customers. This was done in the  
22 same manner as Newfoundland Power's customer's who were given a  
23 rebate as a result of the resolution of a tax issue in 2000. This amount  
24 was offset by the monthly Rural Change Adjustment of \$77,000.

1 (b) As a result of the January 1992 Rate Hearing, the Board  
2 recommended that Hydro continue to track Newfoundland Power rates  
3 for the Rural Interconnected customers, and for the first 700 kWh for  
4 Isolated Rural customers.

5  
6 However, in the PUB report as a result of that rate hearing, the Board  
7 also recommended that:

8  
9 “At the hearing on Hydro’s Cost of Service methodology Hydro  
10 present for the consideration of the Board a provision to be included in  
11 the RSP requiring that the RSP be credited with the additional  
12 revenue received by Hydro as a result of Newfoundland Power’s rate  
13 adjustments.”

14  
15 At the 1993 cost of service methodology hearing, Hydro presented a  
16 proposal to the Board which was subsequently accepted and states, in  
17 part, that:

18  
19 “the policy apply to all alterations (increases and decreases) to  
20 Newfoundland Power rates that could result in a change in Hydro’s  
21 rural revenues.”

22  
23 Hydro has followed this policy since its implementation in 1993.

24  
25 (c) Hydro considers the approval of its proposal at the 1993 hearing as its  
26 authority to record the April charge to the RSP and therefore further  
27 approval of the Board was not requested.

1 Q. Further to NP-46 and NP-203, provide an updated forecast of hydraulic  
2 production for 2001 assuming the storage level at year-end 2001 will equal  
3 the minimum target level.

4

5

6 A. Actual net hydraulic production to July 31, 2001 was 2645.7 GWh. The  
7 forecasted net hydraulic production to year-end that will place reservoirs at  
8 the minimum storage level is 1324.1 GWh. Total net hydraulic production for  
9 2001 is forecasted to be 3969.8 GWh.

1 Q. Further to NP-185:

2

3 (a) Reconcile the Hydro rural deficit stated in the Manitoba Hydro survey  
4 with the Hydro rural deficit identified in NP-34.

5

6 (b) Restate the table provided in NP-185 showing the deficit as a  
7 percentage of revenue for each utility. For the calculation of the rural  
8 deficit for Newfoundland Hydro use the total rural deficit based on the  
9 information provided in NP-34.

10

11

12 A. (a) The 1999 Actual Cost of Service was used as a basis when responding  
13 to the Manitoba Hydro survey. At that time the Rural Isolated deficit was  
14 approximately \$16 million. The 1999 Actual Cost of Service has since  
15 been revised and the Rural Isolated deficit is now approximately \$17  
16 million as shown in NP-34.

17

18 (b) The Manitoba survey questionnaire did not request information  
19 pertaining to the revenue for each utility therefore Hydro is unable to  
20 restate the table as requested.

1 Q. Further to NP-36:

2 (a) At the 1996 Hearing, the projected revenue to cost ratio for 2002 for  
3 the L'Anse Au Loup system was 65%. The forecast 2002 revenue to  
4 cost ratio for the L'Anse Au Loup system is now 45%. Explain the  
5 significant variation.

6  
7 (b) Provide the dollar impact on the rural deficit of the movement from  
8 diesel rates to Island Interconnected rates for the L'Anse Au Loup  
9 system for each year from 1997 to 2000 and forecast for 2001 and  
10 2002.

11  
12  
13 A. (a) The major variances are attributable to:

14	-	Increased operating cost estimate	\$549,000
15	-	Decreased revenue estimate	\$182,000

16  
17 A further analysis of the above variances is attached. The variance in  
18 operating cost estimates is primarily due to an abnormally low  
19 estimate, derived through allocations, for direct distribution expenses,  
20 and a correspondingly low expense-related overhead allocation.

21 Changes to these allocations for the 2002 test year forecast are  
22 supported by several years of actual experience. Additional  
23 differences are difficult to analyze due to changes to Hydro's code of  
24 accounts and costing allocations in the intervening years.

25  
26 On the revenue side of the equation, an annual compounded 2% rate  
27 increase was assumed for the revenue estimate prepared in 1996.

28 When combined with projected load growth, revenues were estimated

1           to increase by a total of approximately 6.5% compounded annually,  
2           from 1997 to 2002. These load and rate estimates have not  
3           materialized and a lower base reflecting more recent usage and rates  
4           has been incorporated in the revenue estimate prepared for the 2002  
5           test year.

6

7           (b)   The increase in the rural deficit resulting from charging Island  
8           Interconnected rates rather than Diesel rates is shown in the following  
9           table:

Year	Revenue Reduction
1997	\$252,000
1998	\$323,000
1999	\$346,000
2000	\$397,000
2001	\$416,000
2002	\$423,000

**NEWFOUNDLAND AND LABRADOR HYDRO**  
**L'Anse au Loup Revenue and Cost Estimates (\$)**

**NP-209**  
**Page 3 of 3**

	<u>1996 Estimate (PUB-40 (ii))</u>		2002	2002
	1997	2002	Proposed	Difference
Operating Costs:				
Diesel Production	127,827	194,574	212,806	18,232
Distribution - Labrador South	41,503	45,823	255,403	209,580
Metering	7,937	8,763	8,568	(195)
Customer Accounting	41,010	45,278	58,193	12,915
Subtotal Direct	<u>218,277</u>	<u>294,438</u>	<u>534,970</u>	<u>240,532</u>
Overheads:				
Production	47,855	52,836	105,970	53,134
Distribution	8,335	9,203	68,591	59,388
Other	27,731	30,617	63,441	32,824
Property Insurance	2,280	2,517	4,736	2,219
Expense-Related	106,339	117,407	299,226	181,819
Total Operating Costs	410,817	507,018	1,076,934	569,916
Expense Credits	<u>(6,820)</u>	<u>(7,530)</u>	<u>(28,296)</u>	<u>(20,766)</u>
	403,997	499,488	1,048,638	549,150
Load (MWh)	9,556	11,852	11,740	(112)
Revenues	962,398	1,317,865	1,136,125	(181,740)

1 Q. Response to Request for Information NP-157 shows that the peak month for  
2 each of 1998, 1999 and 2000 was December. In 1997, NP-157 indicates  
3 that the peak month was March. Response to Request for Information NP-  
4 121 indicates that Hydro has forecast peaks in 2001 and 2002 to be the  
5 same for December and January, both slightly higher than February. With  
6 this information, why has Hydro concluded that the allocation of generation  
7 demand costs should be based on the CP's of the two peak months (with the  
8 two peak months being January and February).

9  
10

11 A. The peaks referred to in the response to NP-157 are Hydro's system peaks  
12 rather than the Total Island Interconnected System peaks that are the basis  
13 for LOLH calculations.

14

15 The conclusion that the allocation of generation demand costs should be  
16 based on the CP's of the two peak months is based on the analysis  
17 presented in the report "An Analysis to Determine The Relationship Between  
18 Load Factor And System Reserve Requirement", April 2001 provided in  
19 response to NP-135. That analysis concluded that the greatest LOLH  
20 contributions are made in the two peak months. These do not necessarily  
21 have to be January and February.

22

23 As stated in the report, the load shape used in the analysis is a normalized  
24 shape considered to be representative of the Total Island Interconnected  
25 System loads. Peak loads for the Total Island Interconnected System  
26 typically occur in any of the months December through March with a greater  
27 likelihood of occurring in January and February. This is consistent with a  
28 system comprised of significant amounts of electric heat.



1 Hydro's forecast peaks in 2001 and 2002 for Newfoundland Power as  
2 presented in NP-121 are the same for December and January. This reflects  
3 the same relationship between the January and December peak demand  
4 purchases as forecast by Newfoundland Power in its Energy Supply Forecast  
5 to Hydro which, in part, forms the basis for Hydro's short term load forecasts.

1 Q. Further to NP-137, the cost recovery targets proposed by PRH page 5 are:  
2 Domestic 95%, General Service 105% to 115%, Street Lighting 100%. In  
3 P.U. 7, 1996-97, page 87, the Board stated:

4

5 “The Board agrees with the philosophy that is not necessary to achieve a  
6 100% revenue to cost ratio for all classes and takes no exception to a  
7 variance of up to 10%, i.e., to achieve between 90% to 110% of the cost of  
8 service in revenue.”

9

10 Why is Hydro proposing a guideline for General Service cost recovery with  
11 an upper limit outside the 10% variance accepted by the Board for  
12 Newfoundland Power’s rates?

13

14

15 A. As stated in NP-137, the General Service classes will average approximately  
16 108% cost recovery based on 95% cost recovery for the Domestic class.  
17 Therefore, 105% to 115% allowed more flexibility to achieve the 95% target  
18 for Domestic. If the Domestic target is deemed inappropriate, the General  
19 Service range can be modified to the 100% to 110% range noted above.

1 Q. Explain how payroll tax and municipal taxes are treated in the cost of service  
2 study.

3

4 A. In the 2002 Test Year Cost of Service (COS) Study, payroll and municipal  
5 taxes are included in expense-related overhead. These amounts are  
6 classified based on direct operating expenses. The COS study as filed  
7 contained an error, in that municipal taxes should have been split into  
8 systems based on prior year rural revenues, rather than based on direct  
9 operating expenses. This adjustment will be reflected in a revised cost of  
10 service, when filed.

1 Q. (a) Further to NP-130, provide details of any amounts that may have been  
2 paid to Hydro by Albright & Wilson Americas resulting from the  
3 termination or abandonment of the contract for service.

4

5 (b) Was the amount recovered, if any, applied to reduce future revenue  
6 requirements from the remaining customer population.

7

8

9 A. (a) On December 9, 1996 a written notice of termination was given to  
10 Hydro by Albright & Wilson Americas stating that they were terminating  
11 the electricity supply agreement as of midnight December 15, 1997, no  
12 amount was paid to Hydro as a result of this termination.

13

14 (b) As indicated in part (a) no amount was recovered.

1 Q. (a) Further to NP-76, identify all cases where Hydro has pursued social or  
2 public policy objectives. Indicate whether these objectives were  
3 pursued on its own or based on direction from its shareholders.

4

5 (b) Identify and support the associated impact on Hydro's revenue  
6 requirement of Hydro's pursuit of the social and public policy  
7 objectives identified in (a).

8

9 A. (a) The following are social or public policy objectives of Government that  
10 have affected Hydro's actions or the nature of services provided and  
11 are included in Hydro's 2002 test year revenue requirement. These  
12 items result from direction from Hydro's shareholder.

13

14 (1) Rural Rates Policy:

15

16 • Customers served on the Island Interconnected Rural  
17 System would be charged the same rates as Newfoundland  
18 Power's customers

19 • Life line rate block for Isolated Rural customers of 700 kWh  
20 per month

21 • Preferential rates for certain Rural customers

22

23 (2) Pursuit of purchased power from Non-Utility Generators.

24

25 (3) Payment of Rural Deficit by Newfoundland Power and Labrador  
26 Rural Interconnected customers.

- 1 (b) The impacts of the Rural Rates Policy are included in the Rural Deficit.  
2 This deficit, as well as the purchased power costs from Non-Utility  
3 Generators, is included in Hydro's 2002 revenue requirement.

1 Q. Reconcile the \$14,939,871 Rural Island Interconnected deficit for 2002 from  
2 NP-34 with the \$5,078,944 Rural Island Interconnected deficit for 2002 from  
3 JAB-1, Schedule 1.2, page 1 of 6, line 6, column 5.

4

5 A. Deficit amounts reported for NP-34 are in accordance with the Board's 1993  
6 Cost of Service methodology, referred to by Hydro as the Generic Cost of  
7 Service methodology. The Cost of Service filed as Exhibit JAB-1 is referred  
8 to as the Proposed Methodology, with differences as noted in the evidence of  
9 Mr. John Brickhill. In order to provide a reconciliation of amounts between  
10 two methodologies, it is necessary to arbitrarily select the sequence in which  
11 to analyze the changes. The resulting reconciliation is presented in Section  
12 A on the attached schedule.

13

14 In addition, Hydro is providing the impacts based on individual analysis of  
15 each change. The sum of the individual differences does not match the total  
16 difference due to the compounded impact of each change. Please refer to  
17 Section B of the attached schedule.

**NEWFOUNDLAND AND LABRADOR HYDRO**  
**Analysis of Rural Deficit Changes**  
**Between Generic and Proposed Cost of Service Methodologies (\$)**

**Section A. Reconciliation with Sequence of Changes Arbitrarily Selected**

Rural Island Interconnected Deficit, Generic (1993) Methodology	14,939,871
Proposed Methodology changes affecting Rural Island Interconnected Deficit:	
Plant Allocations	(8,707,582)
GNP Line Losses	(347,872)
Elimination of Return on Equity for Rural Island Interconnected	(704,714)
2 CP Production Demand Allocator	(100,759)
Rural Island Interconnected Deficit, Proposed Methodology	<u><u>5,078,944</u></u>

**Section B. Independent Change Analysis**

	<u>Rural Island Interconnected Deficit</u>		
	Proposed	Proposed w/ Individual Change	Difference
Proposed Methodology changes affecting Rural Island Interconnected Deficit:			
Plant Allocations	5,078,944	13,786,526	(8,707,582)
GNP Line Losses	5,078,944	5,438,377	(359,433)
Elimination of Return on Equity for Rural Island Interconnected	5,078,944	5,486,770	(407,826)
2 CP Production Demand Allocator	5,078,944	5,198,052	(119,108)



1 Q. (a) Further to NP-202, estimate the 2002 RSP fuel cost shortfall (as a  
2 result of using \$20 per barrel for No. 6 fuel in the cost of service study)  
3 allocated to Labrador Interconnected Rural from sales to Bulk Rural?  
4

5 (b) How does Hydro propose to recover the projected shortfall from (a)?  
6

7 (c) Why is Hydro not proposing an RSP component for the rates of  
8 Labrador Interconnected customers?  
9

10  
11 A. (a) The estimated amount of RSP fuel cost allocated to Labrador  
12 Interconnected for 2002 is \$199,739, as filed in response to PUB 59.0,  
13 2002 p. 12.  
14

15 (b) Hydro is not proposing to recover the projected shortfall.  
16

17 (c) The RSP fuel cost shortfall results from Hydro's decision to use \$20  
18 per barrel fuel in its 2002 rate proposal rather than the forecast cost of  
19 \$28 per barrel. This was done in order to mitigate rate increases for  
20 customers served on the Island Interconnected system. Hydro is not  
21 proposing an RSP component for the rates of Labrador  
22 Interconnected customers at this time due to the exceptional nature of  
23 these circumstances concerning the RSP amount as well as the  
24 administrative complexities associated with implementing an RSP  
25 adjustment clause for 21 existing rate classes.

1 Q. Reconcile the \$93,584,000 forecast interest for 2002 (JCR Schedule 1) with  
2 the \$95,129,413 return on debt (JAB-1, page 1 of 94). Explain the variance.

3

4 A. The following schedule shows the reconciliation of the debt return on  
5 ratebase to the net interest expense:

	<u>(000's)</u>
6	
7	
8 Ratebase Return on Debt (JAB-1, page 1 of 94)	
9       1,370,470       x   83.18%       x 8.345%	95,129
10 Return on Debt on average balance of:	
11       CWIP   111,973   x   83.18%   x 8.345%	7,772
12       RSP     92,584   x   83.18%   x 8.345%	6,427
13 Excess of assets over capital structure	
14       (1,575,028 - 1,566,450) x 83.18% x 8.345%	(595)
15       Rounding	<u>3</u>
16 Gross Interest (Average Debt x Cost of Debt)	
17       1,303,012       x   8.345%	108,736
18 Total Return on average balance of	
19       CWIP   111,973   x   7.399%	(8,285)
20       RSP     92,584   x   7.399%	(6,850)
21 Differences due to timing <sup>1</sup>	<u>17</u>
22 Net Interest expense, (JCR, Schedule 1)	<u>93,584</u>

23

24 <sup>1</sup> Actual allowance for funds used during construction (AFUDC) related to the  
25 CWIP and actual financing charges in the RSP will vary from that derived by  
26 multiplying the average balance by the WACC to the extent that the timing of  
27 related cash flows are not precisely at mid-year.

1 Q. Provide the report prepared on Hydro's review of long-term average storage  
2 levels in November 2000 (referred to on page 23 of the Financial  
3 Consultant's Report on the 2001 General Rate Hearing).

4  
5

6 A. Page 23 of the Financial Consultant's Report on the 2001 General Rate  
7 Hearing refers to the periodic review that Hydro conducts in order to identify  
8 the impacts of additional hydrologic sequences and changes in operating  
9 conditions on expected hydraulic production. The procedure used in  
10 performing this assessment is described in IC-81(Rev), as are the results  
11 from the reviews.

- 1 Q. Provide the average diesel fuel cost per litre for the Rural Isolated systems in  
2 total for each year from 1992 to 2000 and forecast for 2001 to 2005.  
3  
4 A. The average diesel fuel cost per litre for the Rural Isolated Systems is  
5 included in the following table:

Year	Avg. Fuel Cost per Litre (\$)
1992	0.23
1993	0.23
1994	0.22
1995	0.23
1996	0.26
1997	0.28
1998	0.24
1999	0.26
2000	0.42

Year	Forecast Avg. Purchase Cost per Litre (\$)
2001	0.44
2002	0.42
2003	0.41
2004	0.40
2005	0.42

1 Q. Further to JAB-1, Schedule 1.1, page 1 of 2, the diesel fuel cost forecast for  
2 2002 is \$6,323,748. Assume the proposed diesel cost is approved for the  
3 test year, but actual diesel costs in 2002 are 10% less than forecast. Explain  
4 the impact of the price variation on Hydro's earnings.

5

6 A. If actual diesel costs in 2002 are 10% less than the \$6,323,748 forecast,  
7 Hydro's earnings will be higher than forecast by \$632,375 since variations in  
8 diesel fuel cost are not accounted for in the rate stabilization plan.

1 Q. Further to NP-191, confirm the average price of No. 6 fuel in the 2002 cost of  
2 service study used to determine revenue requirement is \$21.20 per barrel.

3

4 A. Please see response to NP-43 which shows the monthly average prices that  
5 are used for No. 6 fuel in the 2002 cost of service study which are based on  
6 the opening inventory value of \$28.77 per barrel as of January 1, 2002 and  
7 all purchases during 2002 at \$20 per barrel.