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**Newfoundland and Labrador
Hydro - 2001 General Rate
Hearing
Grant Thornton LLP –
Supplementary Evidence**
December 13, 2001

1 The purpose of this supplementary evidence is to provide additional commentary with
2 respect to the following topics:

- 3 • Holyrood Efficiency Factor
- 4 • Controllable Operating & Maintenance Expenses
- 5 • Rate Stabilization Plan

6
7 **Holyrood Efficiency Factor**

8
9 In its application Hydro is proposing to use an efficiency factor for the Holyrood thermal
10 generating plant of 610 kWh per barrel. This factor is up from the 605 kWh per barrel
11 used in the 1992 cost of service. The proposed efficiency factor of 610 kWh/bbl is based
12 on five years of historical data from 1996 to 2000. Per R.J. Henderson, Hydro's rationale
13 for utilizing records from this five-year timeframe (transcript, Oct 10, 2001, pg 21, line
14 88) was to present a somewhat normalized fuel conversion rate that would incorporate a
15 wider range of operating levels at Holyrood (i.e. load) with both wet and dry years.

16
17 The efficiency factor in the 2002 test year should reflect the expected operating
18 conditions of the Holyrood plant for that year. The forecast thermal generation for 2002
19 is 2207 GWh.

20
21 Hydro's use of the 1996 to 2000 historical data does not take into account the fact that
22 this time period incorporates years which are all above average in terms of hydrology (i.e.
23 wet years), whereas the 2207 GWh in 2002 is based on an average hydrological year. To
24 illustrate this point, we have compared the forecast thermal generation for 2001 and 2002
25 to the average thermal generation for the period 1996 to 2000. Per H.G. Budgell's
26 supplementary evidence filed on October 31st, the thermal production forecast was
27 revised to 2,184 GWh for 2001 and 2,207 GWh for 2002. These forecast production
28 levels exceed the average thermal generation for the period 1996 to 2000 by 79.4% and
29 81.3% respectively (see Exhibit I).

30

1 Based on information provided by Hydro for the first ten months of 2001, the thermal
2 production level in 2001 is likely to be more representative of an average hydrological
3 year. This is consistent with the premise that the data used to calculate the efficiency
4 factor should reflect the operating conditions of the Holyrood plant expected during the
5 2002 test year.

6

7 For the month of October 2001 the calculated fuel conversion rate at Holyrood was 648.6
8 kWh/bbl with an average conversion rate for the ten-month period of 626.4 kWh/bbl (U-
9 Hydro #29). Using this information and making certain assumptions regarding
10 November and December, we can estimate the conversion factor for the full year 2001.
11 Since the months of November and December generally result in higher loads as we enter
12 into the winter season, it is reasonable to assume that Holyrood is able to achieve the
13 same efficiency factor for these two months as in October. Using the annual thermal
14 forecast of 2,184 GWh for 2001 we calculate a conversion factor of 633 kWh/Bbl for
15 2001 (see Exhibit II).

16

17 Since 2001 thermal production is more representative of an average hydrological year,
18 then the efficiency factor of 633 kWh/bbl may be a better proxy for the forecast
19 efficiency at Holyrood in the test year 2002. For illustrative purposes, we have calculated
20 the potential fuel cost savings associated with varying efficiency factors (see Exhibit III).
21 The total potential savings in the test year at the various efficiency levels are as follows:

22

Efficiency factor kWh/bbl	Estimated Total Savings (\$millions)	Impact on revenue Requirement (\$millions)	Impact on RSP (\$millions)
615	\$0.764	\$0.631	\$0.133
620	\$1.529	\$1.262	\$0.267
625	\$2.293	\$1.893	\$0.400

23

24 These savings are based on the forecast average price of No. 6 fuel for 2002 of
25 \$25.91/bbl.

1 **Controllable Operating & Maintenance Costs**

2
3 Throughout the hearing there has been considerable questioning under cross-examination
4 of Hydro’s witnesses with respect to controlling the level of operating and maintenance
5 expenses. This questioning has focused on the growth in the level of controllable
6 expenses, the various cost saving initiatives already undertaken and whether the test year
7 forecast of expenses incorporate all the efficiencies to be generated. For example, there
8 have been issues raised by various parties with respect to the level of professional fees,
9 maintenance expenses and salaries.

10
11 If the Board were to deem it appropriate to make an adjustment to the test year revenue
12 requirement with respect to the forecast controllable expenses, one approach would be to
13 provide for a “productivity allowance” against the total of these expenses. This approach
14 would provide management with the latitude to determine where further cost savings or
15 efficiencies can best be achieved. Attempting to reduce individual expense categories for
16 purposes of setting the test year revenue requirement would require the Board to give
17 specific direction as to how the utility should be managed. This may impede the ability
18 of Hydro management to make decisions on how and where efficiency improvements are
19 best implemented.

20
21 The concept of using a productivity allowance in determining the test year revenue
22 requirement is not new for the Board. This approach was used in the 1996 general rate
23 hearing for Newfoundland Power. At that time the Board ordered a productivity
24 allowance of \$1million (4%) be applied to operating expenses to reduce the test year
25 revenue requirement.

26
27 In assessing the appropriateness and the level of any such allowance, the Board should
28 look at this from a macro perspective. In Exhibit 2 of our 2001 Rate Hearing Report you
29 can see that the total “Other costs” for 2002 is \$97.803 million (\$89.763 million after
30 allocations/recoveries). A productivity allowance should be determined in reference to
31 this total. Considering the trend in these costs on a kWh basis as noted in Exhibit 5D.1

1 (2001 Rate Hearing Report), we believe that a productivity allowance in the range of 1%
2 to 1.5% of controllable operating expenses would be reasonable. This would represent a
3 reduction in the test year revenue requirement of \$0.978 million to \$1.467 million.

4 5 **Rate Stabilization Plan**

6
7 There are many issues and questions relating to the rate stabilization plan, however, as
8 financial advisors, we are restricting our comments to three financial impacts included in
9 the rate stabilization plan. These three impacts are as follows:

- 10
11
- The re-based cost of a barrel of No. 6 fuel for the test year (2002).
 - The request to increase the current retail cap of \$50 million to \$100 million.
 - Alternatives to recovering the balance in the plan.
- 12
13
14

15 The RSP is projected to reach a balance of \$92 million by December 2001 (PUB 78, Page
16 2 of 12 – this will change based on Henderson’s supplementary that was filed December
17 31, 2001), and \$92 million by December 2002 (PUB 78 less \$12 million as per
18 Henderson’s supplementary evidence – December 12, 2001).

19 20 Cost of No.6 Fuel for the Test Year

21
22 It is our understanding that, among other things, the purpose of introducing this plan was
23 to protect consumers from the volatility of the price of fuel and the uncontrollable
24 changes in hydraulic generation that would impact the price of electricity.

25
26 The most significant factor contributing to the increasing balance in the RSP is the cost
27 per barrel of No.6 fuel. The current “cost of service” price is \$12.50 per barrel that was
28 set by the Board in 1992. Hydro is currently projecting that the cost of No.6 Fuel in 2002
29 will be approximately \$25.91 /bbl (Henderson supplementary evidence-December 12,
30 2001, Table 1, Page 1) and is proposing that the Board approve a “cost of service” price
31 per barrel of \$20 for the 2002 test year.

1 We have recalculated the impact on revenue requirement for various prices for the “cost
 2 of service” price per barrel of No.6 fuel in the range of \$20 to \$26 per barrel. According
 3 to our calculations the increase in the price per barrel of No.6 fuel at various increments
 4 between \$20 and \$26 per barrel would result in the following impact on revenue
 5 requirement:

6

	Cost of Service No. 6 Fuel \$20 per barrel	Cost of Service No. 6 Fuel \$22 per barrel	Cost of Service No. 6 Fuel \$24 per barrel	Cost of Service No. 6 Fuel \$26 per barrel
Revenue Requirement	\$323.3 million	\$330.5 million	\$337.7 million	\$344.9 million
Additional Revenue Requirement		\$7.2 million	\$14.4 million	\$21.6 million
% Increase in Additional Revenue Requirement		2.2%	4.5%	6.7%

7

8 It is important for the Board to note that the increase in revenue requirement under each
 9 of the above scenarios would result in a decrease in the forecast retail and industrial RSP
 10 balances and consequently a decrease in the RSP mill rate adjustments that would
 11 otherwise be implemented in 2003.

12

13 The supplementary evidence filed by Mr. Henderson on December 12, 2001, does not
 14 provide the necessary information to calculate the RSP mill rate adjustments for 2003,
 15 which are based on the 2002 RSP balances for the retail and industrial plans. In order to
 16 get a complete picture of the impact of the various “cost of service” fuel prices, the Board
 17 should request this information from Hydro for the scenarios noted above.

18

1 Increase Current Retail Cap to \$100 million

2
3 The cap in the retail portion of the plan is currently set at \$50 million and, according to a
4 previous Board Order, Hydro is required to come back to the Board when the retail
5 portion of the plan approaches the \$50 million cap.

6
7 Hydro is now requesting approval from the Board to increase this cap in the retail plan to
8 \$100 million. According to Hydro's forecast of the RSP for 2001, the retail balance of
9 the plan will exceed \$50 million and is projected to reach \$67.3 million (PUB 78 – Page
10 10 of 12). As of September 2001, the actual retail balance was \$44 million, which is
11 approximately double the opening balance in January 2001 (\$22.7 million). According to
12 PUB 78 – Page 10 of 13), the retail balance in 2002 was projected to increase to a
13 balance of \$78.5 million, however this will decrease based on Mr. Henderson's
14 supplementary evidence filed on December 12, 2001. He indicated that with the revised
15 forecast cost per barrel for No.6 fuel in 2002 declining from \$28.84 to \$25.91, the RSP
16 balance is forecast to decrease by approximately \$12 million. Assuming that the
17 estimated retail balance of the plan will continue to represent approximately 75% of the
18 total plan balance, the retail balance at December 31, 2002 would be approximately \$69
19 million.

20
21 The Board has several options to consider, assuming the RSP mechanism is not
22 eliminated:

- 23
- 24 • Approve the \$100 million cap for the retail plan
 - 25 • Approve an increase in the cap between \$50 million and \$100 million
 - 26 • Leave the cap at \$50 million and decide on how the excess is to be recovered
- 27

28 The evidence throughout the hearing has indicated concerns with respect to the current
29 balance being too high and that deferring a portion of current costs to future years is not
30 appropriate. As indicated above, based on the recent revisions to fuel prices, we project
31 the retail plan to reach a balance of approximately \$69 million by the end of 2002. So it

1 does not seem appropriate to implement a cap that would provide an additional cushion
2 of approximately \$31 million.

3
4 We recommend that the Board approve a temporary or interim increase in the retail cap
5 for the plan at this time. This cap should be set in reference to the revised projected peak
6 balance of the retail plan over the 2002 and 2003 time period as opposed to the \$100
7 million requested by Hydro.

8
9 In order, to ensure the Board has the opportunity to review the RSP within a reasonable
10 time frame, we recommend that the Board consider setting a mandatory time frame of a
11 maximum of three years for Hydro to submit the RSP to the Board for review. In the
12 event Hydro, as indicated, comes forward with a new application in 2003 then this review
13 can be undertaken earlier.

14 15 Alternatives to Recovering the Balance in the Plan

16
17 Currently the balance in the RSP is recovered from consumers over a three year period
18 using a declining balance method. Hydro is not proposing any changes to the current
19 recovering method. Due to the increasing balance in the plan, the Board may wish to
20 consider other alternatives that may be available and practical to ensure the balance in the
21 plan is maintained at a reasonable level.

22
23 According to the evidence of Mr. Osmond, Hydro has not made any revisions since 1985.
24 Hydro is of the opinion that the one-third recovery seems to be working. He also
25 indicated that there are certainly other recovery options: it can be recovered over a shorter
26 period of time or a longer period of time. However, Mr. Osmond also noted that the key
27 is that the amount will be recovered. (Transcript November 21, 2001, Pg. 42, Lines 33-
28 37) The Board has to determine whether the current methodology represents a
29 reasonable time frame for Hydro to recover these deferred costs from consumers or if the
30 recovery period should be over a shorter time frame.

31

1 There are various options that the Board could consider in recovering the balance in the
2 RSP. Two alternatives we suggest the Board should consider are noted below:

3

4 A. Freeze the balance as of December 31, 2001 and continue to recover this balance
5 using the current three year declining balance method, and recover any
6 accumulation in the plan in subsequent years using a straight line basis over a two
7 year period.

8

9 B. Freeze the balance as of December 31, 2001 and recover over a three year period
10 using a straight line basis, and any accumulation in the plan in subsequent years,
11 be recovered over a two year period (straight line).

12

13 We have included an exhibit (Exhibit IV) to illustrate the effect on RSP recovery rates for
14 the options noted above. Since we do not have updated information on the forecast retail
15 and industrial balances which reflect the most recent price forecast for fuel, we are not
16 able to calculate the mill rates accurately. Consequently, we have provided this analysis
17 using hypothetical balances for the retail balance at December 31, 2001 and 2002, and
18 September 30, 2001 and 2002 for the industrial balances. The results of our analysis,
19 however, will demonstrate the impact of mill rate changes based on the scenarios
20 indicated above.

21

22 In examining changes in the recovery method of the RSP, the Board may wish to
23 consider the impact on rates of accelerating the recovery of the outstanding balances in
24 light of the competing objective of minimizing the deferral of costs.

Thermal Production - Forecast vs. Actual

<u>2001</u>	<u>2000</u>	<u>1999</u>	<u>1998</u>	<u>1997</u>	<u>1996</u>	<u>Average</u>
GWh Actual	968	919	1,263	1,531	1,406	1,217
2001 Forecast						2,184
Increase -GWh						967
- %						79.4%

<u>2002</u>	<u>2000</u>	<u>1999</u>	<u>1998</u>	<u>1997</u>	<u>1996</u>	<u>Average</u>
GWh Actual	968	919	1,263	1,531	1,406	1,217
2002 Forecast						2,207
Increase -GWh						990
- %						81.3%

Exhibit III

2002								
Production kWh	Forecast Efficiency Factor	Alternative Efficiency Factor	Forecast Fuel Consumption (Barrels)	Decreased Fuel Consumption (Barrels)	Avg Forecast Fuel	Forecast Fuel Cost	Fuel Cost Savings	Revised Fuel Cost
2,207,000,000	610	615	3,599,410	29,503	\$25.91	\$104,175,000	\$764,432	\$103,410,568
2,207,000,000	610	620	3,599,410	59,007	\$25.91	\$104,175,000	\$1,528,864	\$102,646,136
2,207,000,000	610	625	3,599,410	88,510	\$25.91	\$104,175,000	\$2,293,296	\$101,881,704

Exhibit IV

These calculations were based on the following assumptions:

- a) The retail balance of the RSP as of December 31, 2001 and 2002 is \$65 million and \$70 million, respectively.
- b) The retail sales for the year ended December 31, 2001 and 2002 is 4475 GWH and 4485 GWH, respectively. (PUB 78 – Page 12 of 12, and Page 13 of 13)
- c) The industrial balance of the RSP as of September 30, 2001 and 2002 is \$20 million and \$25 million, respectively.
- d) The industrial sales for the year ended September 30, 2001 and 2002 is 1217 GWH and 1448 GWH, respectively. (PUB 78 – Page 12 of 12 and Page 13 of 13)

	Current Recovery Method	Option A	Option B
Retail adjustment - July 1, 2002	4.84 mills/kWh	4.84 mills/kWh	4.84 mills/kWh
Retail adjustment - July 1, 2003	5.20 mills/kWh	6.19 mills/kWh	7.80 mills/kWh
Percentage of Additional Increase		19%	50%
Industrial adjustment - January 1, 2002	5.48 mills/kWh	5.48 mills/kWh	5.48 mills/kWh
Industrial adjustment - January 1, 2003	5.76 mills/kWh	7.10 mills/kWh	8.63 mills/kWh
Percentage of Additional Increase		23%	50%

Option A: Freeze the balance as of December 31, 2001 and continue to recover this balance using the current three year declining balance method, and recover any accumulation in the plan in subsequent years using a straight line basis over a two year period.

Option B: Freeze the balance as of December 31, 2001 and recover over a three year period using a straight line basis, and any accumulation in the plan in subsequent years, be recovered over a two year period (straight line)