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September 13, 2001

G. Cheryl Blundon  
Board Secretary  
Board of Commissioners of Public Utilities  
Suite E210, Prince Charles Building  
120 Torbay Road  
P.O. Box 21040  
St. John's, NF  
A1A 5B2

Dear Ms. Blundon:

**Re: Newfoundland & Labrador Hydro's 2001 General Rate Application**

Please find enclosed the original plus seventeen (17) copies of Newfoundland & Labrador Hydro's responses to Requests for Information for IC-251, IC-267, CA-190, and CA-191.

Yours truly,

Newfoundland and Labrador Hydro

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Maureen P. Greene, Q.C.  
Vice-President & General Counsel

MPG/jc

Enclosure

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1 Q. Further to NP-125 and NP-126, regarding Newfoundland Power’s generation  
2 credit:

3

4 a. What is the net capacity credit (i.e. generation credit less ‘adjustment  
5 to include load supplied by NP’)

6

7 b. How does this generation credit impact the revenue requirement from  
8 Newfoundland Power? What is the total amount of the impact?

9

10 c. Provide a revised cost of service assuming that Newfoundland  
11 Power’s peak is not reduced for generation credit.

12

13

14 A. a. NP-126 provided the calculation of the total capacity credit for  
15 Newfoundland Power (i.e. 124.8 MW). This generation credit is  
16 applied to Newfoundland Power’s native peak demand in the COS.  
17 The reference in NP-126 to “Adjustment to include load supplied by  
18 Newfoundland Power” (i.e. 47 MW) is the amount of generation which  
19 Hydro expects Newfoundland Power to be running at the time of  
20 Hydro’s system peak. The application of this adjustment in NP-125  
21 results in Newfoundland Power’s native peak to which the full capacity  
22 credit can then be applied.

23

24 b. The generation credit impacts the revenue requirement from  
25 Newfoundland Power in the following ways:

26

1 i) Production and transmission demand allocation factors include  
2 the generation credit, net of Newfoundland Power's assumed  
3 generation, as follows:

4		
5	January MW as per load forecast	1026.8
6	Plus: NP expected generation	47.0
7	Less: NP generation credit	<u>(120.5)</u> <sup>1</sup>
8	MW (before losses) used for Coincident Peak	<u>953.3</u>
9		

10 <sup>1</sup> To be corrected in final COS.

11  
12 i) The system load factor is calculated using the customer-level  
13 Coincident Peak.

14  
15 ii) Newfoundland Power's Coincident Peak also factors into the  
16 allocation of the rural deficit.

17  
18 Because of the limitations stated in the response to part c, we are  
19 unable to determine the total dollar impact. However, based on the  
20 Cost of Service attached, the dollar impact is to adjust Newfoundland  
21 Power's Revenue Requirement (after deficit) by \$1,370,848.

22  
23 c. Please see attached Cost of Service Study. Both the generation to  
24 increase Newfoundland Power's demand to native load and the  
25 generation credit have been removed from the calculation of demand  
26 allocation factors. It must be noted that the results cannot be  
27 considered meaningful, as they are based on Hydro's existing load  
28 forecast (i.e. 1026.8 MW). That forecast made assumptions  
29 concerning Newfoundland Power's load, which are not consistent with

---

1 the forecast supplied by the customer. In their forecast,  
2 Newfoundland Power assumed 93.7 MW of hydro capacity on at the  
3 time of peak whereas Hydro assumed 47 MW, based on historic  
4 analysis, for its forecast. The treatment of Newfoundland Power, with  
5 the Board–approved demand credit made Newfoundland Power’s load  
6 indifferent to Hydro’s assumptions. As well, we are unable to  
7 speculate whether Newfoundland Power would change its forecast to  
8 utilize more of its own generation, should the demand credit be  
9 unavailable. The system load factor, which is used to classify  
10 hydraulic generation costs, was also impacted by this scenario, and is  
11 subject to these same cautions.

1 Q. COS – Reference: JAB-1 Sch. 2.3A and IC-87

2

3 a. Please explain and itemize all assets included in the line 13  
4 (Transmission Lines) \$18,103,022 Rural Transmission Demand in  
5 JAB-1.

6

7 b. Please explain and itemize all assets included in the line 15  
8 (Transmission Terminal Stations) \$2,953,147 Rural Transmission  
9 Demand in JAB-1.

10

11 c. Please explain and itemize all assets added to these two categories to  
12 arrive at the equivalent category values in IC-87. Please confirm that  
13 these assets are related to the GNP interconnection. Please note  
14 whether any of these assets relate to the Hawke’s Bay area.

15

16 d. Please itemize all additional assets that would be removed from  
17 common if the COS in IC-87 had also included Doyles – Port-aux-  
18 Basques line and terminal station and any other assets similarly  
19 assigned to common in JAB-1 (i.e. to comply with the “remote  
20 generation on radial systems that can reach the 230 kV grid”  
21 principle). Please reconcile these numbers with the specifically  
22 assigned values provided in IC-88.

23

24

25 A. a. This amount represents transmission lines dedicated to the service of  
26 Hydro Rural rate classes. The assets are itemized on the Rural  
27 Transmission Line section on the attached Schedule I.

1           b.     This amount represents terminal station assets dedicated to the  
2                     service of Hydro Rural rate classes. The assets are itemized on the  
3                     Rural Terminal Station section on the attached Schedule I.

4  
5           c.     The assets added in to Rural Transmission for IC-87 are the 138 kV  
6                     and 69 kV transmission and terminal station assets on the Great  
7                     Northern Peninsula which connect generation to the 230 kV grid. In  
8                     the original Cost of Service submission (JAB-1), these assets are  
9                     treated as Common, in accordance with the proposed rules of plant  
10                    assignment explained in the prefiled evidence of Mr. Budgell. Please  
11                    refer to Schedule II attached for a list of these assets. TL221 Peter’s  
12                    Barren to Hawkes Bay and the Hawkes Bay Substation are the  
13                    Hawkes Bay area assets.

14  
15          d.     In the original Cost of Service submission (JAB-1), the Doyles –  
16                     Bottom Brook assets are treated as Common. In the Cost of Service  
17                     study provided in response to IC-88, these assets were specifically  
18                     assigned to Newfoundland Power. Schedule III attached reconciles  
19                     NP’s specifically assigned values from JAB-1 with NP’s specifically  
20                     assigned values in IC-88.

21  
22                    In addition to the assets requested in IC-88, the assets on the Burin  
23                    Peninsula are currently assigned Common by virtue of connecting  
24                    remote generation on a radial system that reaches the 230 kV grid.  
25                    Hydro’s proposed plant allocation now treats the GNP and the Doyles-  
26                    Bottom Brook assets consistently with these assets. If the principle of  
27                    plant assignment related to “connecting remote generation on a radial  
28                    system that reaches the 230 kV grid” is modified, the Burin Peninsula  
29                    assets should receive treatment similar to the GNP and the Doyles-



- 1 Bottom Brook assets. Plant values for the assets on the Burin
- 2 Peninsula are listed in Schedule IV attached.

NEWFOUNDLAND AND LABRADOR HYDRO  
SCHEDULE I: Rural Transmission Lines and Terminal Stations

JAB-1  
Sch 2.3A, L.13

**Rural Transmission Lines:**

TL220	Bay d'Espoir to Barachoix	4,307,902
TL246	South Brook to Roberts Arm	976,270
TL251	Hampden Tap to Hampden	466,438
TL252	Jackson's Arm Tap to Jackson's Arm	84,998
TL254	Boyd's Cove to Farewell Head	1,464,811
TL260	Seal Cove Road to Bottom Waters	4,136,552
TL262	Peter's Barren to Daniel's Harbour	551,648
TL226	Deer Lake to Berry Hill	1,191,658
TL227	Berry Hill to Daniel's Harbour	1,059,235
TL229	Wiltondale to Glenburnie	305,769
TL250	Bottom Brook to Grandy Brook	3,557,729
	Rounding Difference	12
		<u>18,103,022</u>

**Rural Terminal Stations:**

	Bottom Brook	9,514
	Bay d'Espoir TS #1	576,537
	Berry Hill	719,690
	Cow Head	36,147
	Daniel's Harbour	87,160
	Deer Lake	85,136
	Farewell Head	69,156
	Grandy Brook	68,118
	Peter's Barren	127,030
	Parson's Pond	25,280
	Rocky Harbour	58,930
	Seal Cove Road	653,156
	Sally's Cove	114,439
	South Brook	29,724
	Boyd's Cove	293,134
	Rounding Difference	(4)
		<u>2,953,147</u>

1 Q. In the Grant Thornton Board of Commissioners of Public Utilities 1996  
2 Annual Review of Newfoundland and Labrador Hydro (NP-22) reference is  
3 made on page 13 to a team effort coordination with Newfoundland Power.  
4 Please provide all minutes of meetings of this team and all recommendations  
5 coming out of that team and the implementation date of these  
6 recommendations.

7  
8 A. The minutes of the coordinations with Newfoundland Power are attached.

9  
10 The coordination process involved reviewing areas of operations for  
11 opportunities of possible co-operation which could result in improved  
12 customer service and lower customer cost. The areas reviewed were as  
13 follows:

- 14
- 15 1. Sharing of Specialized Equipment
  - 16 2. PCB Facilities
  - 17 3. Customer Enquiries (1-800 number)
  - 18 4. Printing Services
  - 19 5. Storage Space
  - 20 6. Emergency Spill Response
  - 21 7. Protective Equipment Test Facilities
  - 22 8. Distribution Maintenance
  - 23 9. Switching
  - 24 10. VHF Mobile Radio System
  - 25 11. Inventories and Common Spares
  - 26 12. 138 kV Transmission Line Maintenance for Central

- 1           13.    Common Equipment and Engineering Standards:
- 2                    i.    Common Equipment and Engineering Standards
- 3                    ii.   69 kV and 138 kV Transmission
- 4                    iii.   Substation Design Standards and Practices
- 5                    iv.   Line Maintenance Construction
- 6           14.    Meter Shop
- 7           15.    Technical Training

8

9           The following is an update on each area reviewed:

10

11           **1) Sharing of Services and Equipment**

12

13           An MOU was finalized in December 2000 for the sharing of services and  
14           specialized equipment. Through this MOU, both utilities now have access to  
15           a broader base of specialized equipment and during outages and  
16           emergencies, are able to utilize the other utility's staff and equipment, if  
17           available, to expedite power restoration. Equipment most likely to be used in  
18           these cases are trucks with long aerial reach, heavy duty all-terrain vehicles  
19           and mobile generation (gas turbine and diesels).

20

21           **2) PCB Facilities**

22

23           After a detailed review, it was concluded that while sharing PCB storage  
24           facilities would be desirable, environmental regulatory constraints on each  
25           utility prevent it at the present time. A process was put in place in July 1997  
26           to ensure the co-ordination of PCB disposal to reduce both transportation  
27           and disposal costs. It was also agreed that the two organizations would,  
28           where possible, co-ordinate their future PCB phase-out programs.

1           **3) Customer Enquiries (1-800 Number)**

2

3           It was determined in October 1998 that it was more cost effective for each  
4           utility to have their separate 1-800 service with their respective general  
5           communication provider. It was also agreed that it is important that all  
6           customers have ready access to their electric utility through a system where  
7           there are minimum interactions before contacting the appropriate utility's  
8           employee. It may be worthwhile in the future to again review the possibility  
9           of having one trouble call number.

10

11           **4) Printing Services**

12

13           From the evaluations completed, it was determined that Hydro could have  
14           some of its printing work done, depending on work load, by Newfoundland  
15           Power at a reduced cost when compared to contracting. However, Hydro's  
16           policy is to public tender services and supplies. The issue of Hydro changing  
17           its policy toward public tendering for such services was not addressed at that  
18           time.

19

20           **5) Storage Space**

21

22           Many areas of both utilities were reviewed for co-ordination and in general,  
23           no opportunity was determined for the practical use of excess storage space  
24           in one utility by the other. With very little overlap of territories, the facilities of  
25           one utility are not conveniently sited for the other's use.

1           **6) Emergency Spill Response**

2  
3           Co-ordination of the resources of both utilities for spill response will be  
4           improved in cases where there is a major spill or a large number of spills that  
5           have occurred over a short period of time. In June 1997, there was an  
6           exchange of information between companies detailing the location and  
7           contact numbers of personnel with responsibilities for emergency response  
8           implementation and locations and types of response materials available at  
9           designated sites. This information is maintained for use if either company  
10          has difficulties accessing other suitable emergency response materials. The  
11          intent is that either company would make response material available to the  
12          other company if other normal sources were not available.

13  
14          **7) Protective Equipment Test Facilities**

15  
16          In reviewing the practices for the testing of protective equipment (e.g. rubber  
17          gloves, etc.), it was determined that changes could be made to standardize  
18          frequency of testing. It became evident that each utility could be assisting  
19          the other in the testing of some of its equipment which was either not being  
20          conducted by both utilities or was being contracted out by one utility.  
21          Coordination of these activities was implemented in October 1998.

22  
23          **8) Distribution Maintenance**

24  
25          The rural operations where Hydro and Newfoundland Power operate  
26          adjacent to each other were reviewed however no overall consensus could  
27          be reached as to if efficiencies could be achieved.

1           **9) Switching**

2

3           The possibility of performing switching on each other's equipment was  
4           reviewed in an effort to enhance customer service. While no overall  
5           consensus could be reached during the review, both utilities are coordinating  
6           switching where applicable. Also sharing equipment status indication is  
7           shared through our respective control centers which enables a more effective  
8           restoration process during system disturbances.

9

10           **10) VHF Mobile Radio System**

11

12           The co-ordination of activities related to the operation and extension of the  
13           VHF Mobile Radio Systems for both utilities was reviewed. It was determined  
14           that because of technical differences between the two existing systems,  
15           there was limited opportunity to pursue cost savings at that time. However, if  
16           one utility is contemplating replacing their existing system, this would be an  
17           opportune time to do a further evaluation on the merits of co-operation. As  
18           Hydro has the replacement of its VHF system in its 2002 capital budget,  
19           discussions have been initiated with Newfoundland Power for possible co-  
20           ordination.

21

22           **11) Inventories and Common Spares**

23

24           The management of materials at Hydro and Newfoundland Power was  
25           reviewed to determine what joint activities could be implemented to minimize  
26           costs to the consumer. It was determined that continuation of a long history  
27           of sharing inventory materials between the two utilities, when one utility has  
28           an immediate need that the other can meet, assists in improved customer  
29           service. Sharing of inventory materials has taken the form of direct purchase

1 and loan/replacement transactions. Another opportunity for savings was to  
2 use a common methodology for disposal of scrap material. With both utilities  
3 using a similar methodology, higher returns on its scrap material sales can  
4 be achieved.

5  
6 **12) 138 kV Transmission Line Maintenance for Central**

7  
8 The existing situation of crew size and location for each utility associated with  
9 maintaining the 138 kV transmission lines in central Newfoundland was  
10 reviewed. However, no overall consensus could be reached as to if  
11 efficiencies could be achieved.

12  
13 **13) Common Equipment and Engineering Standards**

- 14
- 15 • **Common Equipment and Engineering Standards**
  - 16 • **69 kV and 138 kV Transmission**
  - 17 • **Substation Design Standards and Practices**
  - 18 • **Line Maintenance Construction**

19 Material and construction equipment specifications, design standards,  
20 construction standards and work methods for both utilities were reviewed to  
21 identify any potential cost reduction opportunities that may be derived  
22 through standardization.

23  
24 Both utilities have a long history of working together (primarily in distribution)  
25 and based on this, many of the fundamental design components are the  
26 same. The review determined that differences still existed. However through  
27 a reconciliation process, agreement was reached on standardization of the  
28 majority of these differences with exceptions that should remain due to  
29 differences in judgements as to work methods or materials. The differences



1 in the equipment and operations of the two companies made it difficult to  
2 apply the same work methods. However, there were areas where present  
3 and future work methods could be shared to the benefit of both  
4 organizations.

5  
6 **14) Joint Meter Shop Review**

7  
8 The meter shop operations for both utilities was reviewed with the objective  
9 of reducing costs to the ultimate customer however no overall consensus  
10 could be reached as to the most effective joint arrangement. Measurement  
11 Canada has recently discontinued their inspection service in Newfoundland.  
12 This required each utility to change their meter services to accommodate this  
13 withdrawal.

14  
15 **15) Technical Training**

16  
17 A review was done on the opportunities for co-operation in the design,  
18 purchase and/or delivery of technical training programs that meets the needs  
19 of employee development of both utilities. It was determined that benefits  
20 could result from sharing physical resources for training purposes and jointly  
21 purchasing training services. Sharing of training materials and resources  
22 such as library and research services could also be beneficial.

1 Q. In Grant Thornton's 1997 Annual Review at page 34 reference is made to the  
2 Joint Steering and Coordination of Utility Activities Committee and the report  
3 to be released by the Joint Committee in the Fall of 1999. Please provide a  
4 copy of that report.

5

6 A. A number of minor opportunities for change, as outlined in CA-190, were  
7 identified and implemented; however, towards the end of the process there  
8 was little value added in finalizing a written report.