

1 Q. Provide the study supporting the recommendation of using a 2 CP allocator  
2 for generation demand cost (JAB, page 8, lines 8-29).

3

4

5 A. See attached report entitled "An Analysis to Determine The Relationship  
6 Between Load Factor And System Reserve Requirement", April 2001.

1 Q (a) How does Hydro propose to determine excess earnings (KCM, page  
2 56, lines 4-8)?

3

4 (b) How does Hydro propose to deal with excess earnings?

5

6 (c) Is Kathleen McShane aware of any situations where there was no  
7 limitation on a fully regulated utility's earnings or revenue? If so,  
8 please describe the situation(s).

9

10 A. (a) Because Hydro's earnings are not expected to approach a  
11 compensatory return, a specific construct for determining excess  
12 returns has not been developed. However, Hydro would anticipate  
13 that earnings in excess of a compensatory return would be measured  
14 on a utility stand-alone basis using a model similar to that used by the  
15 Board to determine excess earnings for Newfoundland Power.

16

17 (b) Since Hydro's utility earnings during the test period will not exceed a  
18 compensatory level, no specific methodology for dealing with excess  
19 earnings has been developed. In principle, however, excess earnings  
20 could be returned to customers in the subsequent year via a one-time  
21 credit to customer bills.

22

23 (c) To Ms. McShane's knowledge, in Canada, only regulators in  
24 Newfoundland and Quebec have implemented caps on earnings. In  
25 other Canadian jurisdictions, absent an incentive plan which includes  
26 an earnings sharing mechanism, all earnings in excess of the allowed  
27 return are to the account of the shareholder. The converse is also

1 true: the risk that utility earnings will fall short of the allowed return is  
2 the shareholder's risk.

1 Q. Further to NP-11 and NP-12, does Hydro have formal written policies to  
2 guide the allocation of costs to subsidiaries and the allocation of costs  
3 between regulated and non-regulated operations? If so, please provide a  
4 copy. If not, why not?  
5

6 A. Hydro presently has three subsidiaries of which two are inactive and in the  
7 case of CF(L)Co., the procedure for allocation of costs is outlined in the  
8 response to NP-11(b).  
9

10 At the present time, non-regulated operations e.g., sales of recall power and  
11 Labrador Hydro project, are not complex enough to warrant formal written  
12 policies. Hydro has established practices whereby employees use timesheet  
13 reporting to allocate costs and charges are developed to cover occupancy  
14 and overhead costs. Wherever possible, suppliers' costs are charged directly  
15 to the non-regulated operation.

1 Q. Provide a schedule showing the ratio of the number of customers per  
2 employee for the years 1992 to 2000 (actual) and forecast 2001 and 2002.  
3 Provide both the numerator and denominator used in each annual ratio.

4

5

6 A. Refer to the following table:

7

Year	# of Customers <sup>1</sup>	# of Employees <sup>2</sup>	# of Customers per Employee
1992	32756	1012	32.4
1993	33211	1013	37.8
1994	33504	1011	33.1
1995	33728	961	35.1
1996	34165	918	37.2
1997	34355	904	38.0
1998	34555	889	38.9
1999	34847	901	38.7
2000	34917	891	39.2
2001	34991	855	40.9
2002	35138	855	41.1

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<sup>1</sup> Includes a) Rural Customers  
b) Industrial Customers  
c) Newfoundland Power is included as one customer whereas they serve 215,210 customers (2000 Newfoundland Power Annual Report)

<sup>2</sup> Permanent employees as of December for all years except 2001 which is as of May.

1 Q. The Board recommended in its July 29, 1996 report '*Referral by the*  
2 *Lieutenant Governor in Council Concerning Rural Electrical Service*' "that  
3 preferential rates be phased out. The phase out period should be five  
4 years" (page 32). Why has Hydro not started the phase out of preferential  
5 rates?  
6

7 A. Hydro did not start the phase out of preferential rates since this is Hydro's  
8 first general rate application since 1992, plus if preferential rates were  
9 phased out at this time, the magnitude of the rate increase to Isolated Rural  
10 customers, including the general increase, is considered to be significant.  
11

12 In addition, Mr. Osmond in his evidence on Page 9 lines 4 to 19 outlines  
13 that "Considering the overall impact of Hydro's general rate increase on  
14 Isolated Rural Customers, combined with the projected increases for  
15 Isolated Rural Customers that would arise if all recommendations in the  
16 1996 Report were implemented immediately, Hydro is not proposing to  
17 commence the implementation of all of these recommendations starting in  
18 2002. As a first step however, Hydro is proposing to phase in cost based  
19 rates for Provincial and Federal Government departments and agencies as  
20 outlined in the 1996 Report. Hydro believes that it is appropriate that this  
21 rate adjustment be considered by the Board now and in the future in order  
22 to keep the rural deficit paid by Newfoundland Power customers and  
23 Hydro's Rural Customers on the Labrador Interconnected System, as low  
24 as practicable. Hydro will submit at its next Rate Application, for review  
25 and approval by the Board, a rate plan outlining alterations in rates over a  
26 maximum of five years that will address the remaining recommendations in  
27 the 1996 Report (including the phase out of preferential rates and  
28 increases in cost recovery from Isolated Rural Customers)."

1 Q. The current cap on the Retail Rate Stabilization Plan is \$50 million.

2

3 (a) Provide the rationale for the decision to initially implement the cap and  
4 the basis for the amount of the cap established.

5

6 (b) If there is no cap in place for the Industrial Rate Stabilization Plan,  
7 explain the rationale for the decision not to implement the cap.

8

9 (c) If there is a cap on the Industrial Rate Stabilization Plan, provide the  
10 basis for the amount of the cap established.

11

12 A. (a) During the 1985 Hydro Rate Hearing, Hydro indicated rate stability  
13 was the goal of the Rate Stabilization Plan. There was a concern that  
14 the balance in the plan could reach a level beyond which its  
15 amortization would have a destabilizing effect on the consequent retail  
16 rates. Hydro proposed that it initiate an appearance before the Board  
17 if the net balance in the Rate Stabilization Plan, (applicable to  
18 retailers) reached a certain level (either positive or negative). At that  
19 appearance Hydro would propose alternative rates in light of the  
20 circumstances at that time. The amount of the cap, set in 1985, was a  
21 matter of judgment made in light of circumstances at that time.

22

23 (b) There is presently no cap in place for the Industrial portion of the Rate  
24 Stabilization Plan. It is felt that having a cap on the Newfoundland  
25 Power portion of the Rate Stabilization Plan would trigger discussion  
26 with the Public Utilities Board, which would cover issues that would  
27 impact the overall plan balance, including the Industrial portion.

28

- 1 (c) There is presently no cap established for the Industrial portion of the  
2 Rate Stabilization Plan.



1 Q. The Board recommended in its July 29, 1996 report *'Referral by the*  
2 *Lieutenant Governor in Council Concerning Rural Electrical Service'* "that a  
3 new rate be designed for federal and provincial departments and agencies  
4 and these rates, phased in over five years, should recover full costs" (page  
5 32). Why has Hydro waited five years to start the phase out of government  
6 rates?

7

8

9 A. Any changes in rates requires approval by the Public Utilities Board during a  
10 formal hearing process. Hydro's current rate application is the first rate  
11 application that it has deemed necessary for financial reasons, to seek  
12 revisions in rates, since its last rate application in 1992.

1 Q. Provide a breakdown of the firm energy capability forecast in GWh by  
2 hydroelectric, thermal and energy purchases for the years 2001 to 2010  
3 (HGB, Schedule XII).

4

5

6 A. A breakdown of the firm energy capability in GWh by hydroelectric, thermal  
7 and purchases for the years 2001 to 2010 is detailed in the attached table:

**Newfoundland and Labrador Hydro  
Island Interconnected System**

**Annual Firm Energy Capability (GWh)**

<b><u>Year</u></b>	<b><u>Total (Schedule XII)</u></b>	<b><u>Hydroelectric</u></b>	<b><u>Thermal</u></b>	<b><u>Purchases</u></b>
2001	8,275	5,172	2,996	107
2002	8,280	5,177	2,996	107
2003	8,442	5,289	2,996	157
2004	8,715	5,402	2,996	317
2005	8,715	5,402	2,996	317
2006	8,715	5,402	2,996	317
2007	8,715	5,402	2,996	317
2008	8,715	5,402	2,996	317
2009	8,715	5,402	2,996	317
2010	8,715	5,402	2,996	317

1 Q. Provide the calculation of the return on rate base of 9.5% (DWO, page 4, line  
2 24).

3

4

5 A. Please see table below:

6

	<b>PROPORTION</b>	<b>COST</b>	<b>WEIGHTED COST</b>
Debt	60%	8.35%	5.0%
Equity	40%	11.25%	<u>4.5%</u>
Return on Rate Base			9.5%

7

1 Q. Provide evidence to support the statement by WEW that “commencing in  
2 1995, Government, as shareholder, required Hydro to pay dividends”. (WEW,  
3 page 15, lines 20-21).

4

5

6 A. On March 23, 1995 the Government’s 1995/96 Budget was read in the  
7 legislature, and contained the following statement:

8

9 “Mr. Speaker, Newfoundland and Labrador Hydro will pay the people of the  
10 Province a return on their investment in the electrical industry. Accordingly,  
11 Government will receive an annual dividend, starting in 1995-96. In the initial  
12 year, this dividend will be \$19.6 million. The major portion of this dividend  
13 represents profits earned by Hydro on its electrical sales throughout  
14 Newfoundland and Labrador. The balance represents that part of the annual  
15 dividend, which Hydro receives from Churchill Falls (Labrador) Corporation  
16 which is in excess of Hydro’s cost of servicing the debt related to the  
17 purchase of shares in that corporation.”

1 Q. Treat the \$26.2 million subsidy as a component of return on equity rather  
2 than an allocation of the deficit between classes of customers and  
3 recalculate return on equity as a percentage from 1992 to 2000 and forecast  
4 for 2001 and 2002.

5

6

7 A. As requested, the attached schedule shows the calculation of return on  
8 equity if a \$26.2 million subsidy were treated as a component of return on  
9 equity.

1 Q. The Board stated in its October 10, 1995 report "*Referral by the Lieutenant*  
2 *Governor in Council Concerning Rural Electrical Service*": "The surcharge  
3 upon Hydro's customers is financially and economically equivalent to a  
4 hidden tax upon a single commodity, namely electricity" (page 175, item 4).  
5 Given the above statement, how does Hydro reconcile the evidence of D.G.  
6 Hall, page 12, line 26, which appears to be contrary to the Board's previous  
7 ruling.

8  
9

10 A. In a subsequent July 29, 1996 report "*Referral by the Lieutenant Governor in*  
11 *Council Concerning Rural Electrical Service*", the Board revisited this matter  
12 and stated: "Government has determined its policy whereby a cross-subsidy  
13 by ratepayers, with the phasing out of industrial customers by December 31,  
14 1999, will be implemented. This determination precludes further investigation  
15 and consideration by the Board. Therefore, the Board is making no  
16 recommendation on the issue of funding."

17  
18

We believe that these statements supersede those to which you refer.

1 Q. For each of the years 1992-2000 provide a comparison of budget vs. actual  
2 capital expenditures by project, and explain any individual project variances  
3 greater than \$50,000.

4

5 A. Please refer to NP-97 which provides the 1992-2000 comparison of budget  
6 vs. actual by asset class. Individual project variances greater than \$50,000  
7 have been provided to PUB as part of the Year-End Capital Expenditure  
8 Reports from 1996 to 2000. Copies of these reports, as filed with PUB, are  
9 attached. Hydro was not required to file these same reports for the years  
10 1992 to 1995, and did not prepare such reports. Therefore the explanations  
11 of variances for those years are not available.



1 Q. With regard to Hydro's budget and control processes:

2

3 a) What process is followed to develop the capital and operating  
4 budgets?

5

6 b) Does Hydro calculate variances or expected variances from its capital  
7 and operating budgets? If so, how frequently is it done?

8

9 c) If variances are calculated, who are they reported to?

10

11 d) Who is responsible for dealing with the variances?

12

13 e) What action is taken when variances are identified?

14

15

16 A. a) The process followed to develop the capital and operating budgets is  
17 outlined on Pages 3 to 6.

18

19 b) Variances related to Capital are calculated on a monthly basis.  
20 Variances related to Operating are reported on a monthly basis by  
21 means of a comparison to the latest operating forecast which is  
22 prepared as required and also on a mandatory basis twice a year,  
23 once during the preparation of the annual budget and again in  
24 October.

25

26 c) Capital variances are reported monthly to the Project Managers.  
27 Operating variances are reported monthly to the Directors and Vice-  
28 Presidents and CEO.

1 d) The Project Managers are responsible for Capital variances. The  
2 Business Unit Managers, Asset Managers, Directors and V/P's are all  
3 responsible for dealing with Operating variances.

4  
5 e) When Capital variances are identified, appropriate action is taken and  
6 if necessary a Change Order issued and a reforecast prepared for  
7 review and approval by the appropriate levels of management.

8  
9 When Operating variances are identified, appropriate action is taken  
10 and if necessary a reforecast is requested from the applicable  
11 Business Unit Manager who is required to submit a reforecast of  
12 operating expenditure with appropriate approvals if the annual  
13 expense is going to be greater than or less than the previous forecast.

14  
15 **Capital Budgeting Process:**

16 The Capital budgeting process within Hydro is a very intensive and essential  
17 process that involves the input of supervisory personnel with budgetary  
18 responsibility all the way through each level of Management until it is  
19 eventually approved by Hydro's Board of Directors before being forwarded to  
20 the Public Utilities Board for approval. This process spans approximately  
21 nine months, from start to finish and involves the review and evaluation of  
22 every capital budget proposal that is prepared, to determine if it should move  
23 forward for approval to the next level of supervision.

24  
25 The first step is for supervisory personnel to review their requirements with  
26 the regional managers and plant managers to identify potential projects that  
27 meet the criteria for "Capital" expenditure. Examples of these requirements  
28 would be:

29

- 1 a) Purchases of new equipment that have a useful service life that is  
2 expected to extend over several years.
- 3 b) Replacement of units of property (e.g. A diesel engine, vehicle,  
4 transformer, etc.).
- 5 c) Major upgrading of transmission or distribution systems.
- 6 d) Construction of generating plants.
- 7 e) Payments for feasibility studies and environmental assessments.

8

9 Once these requirements are identified, the various directors undertake a  
10 review of the individual proposals (usually in March) of the dollar estimates.  
11 Projects are assessed based on the following criteria:

- 12
- 13 i. To protect human life;
- 14 ii. To prevent imminent interruption of service to customers;
- 15 iii. To protect Hydro's assets against loss or damage;
- 16 iv. To maintain power system reliability and availability;
- 17 v. To comply with pertinent regulations, standards, etc. and environmental  
18 standards;
- 19 vi. To meet projected customer load demand; and,
- 20 vii. To reduce costs and improve efficiency.

21

22

23 These capital plans are prepared to cover the budget year in question as well  
24 as estimates for four subsequent years. After the directors finish their  
25 review, and revisions made, the proposals are further reviewed by the Vice-  
26 President of each Division, then, in May, the Management Committee does  
27 its review and reassesses each proposal according to the criteria listed  
28 above.

29

1 The Management Committee refers to the four subsequent year estimates as  
2 an indicator of future dollars to be spent and considers this information in  
3 assessing the current capital budget year dollars under review. After  
4 Management Committee has reviewed the capital budget it is then forwarded  
5 to the Hydro Board of Directors for their review and approval. This normally  
6 takes place in September or early October. After Board approval is received,  
7 the capital budget is then forwarded to the Public Utilities Board for public  
8 review and approval.

9  
10 **Operating Budget Process**

11 The basic budget reporting unit is called a Business Unit. In total, there are  
12 approximately 150 Business Units, which need to be budgeted. A budget is  
13 prepared on each of these units on an account-by-account basis.

14  
15 The operating budget process normally begins in March of each year when a  
16 detailed set of budget instructions is forwarded to all Directors and Managers  
17 by the Controllers Department. Each area has approximately 4 weeks to  
18 prepare their budgets.

19  
20 **Operating Costs** – The process of budgeting for operating costs uses the  
21 JD Edwards system. On-line access to the system is available to all areas  
22 and as a result much of the budget process is being de-centralized by having  
23 staff in the areas prepare their budgets and then input the information on-line  
24 to the JD Edwards system. Budget department staff assists in the process by  
25 giving direction and guidance.

26

1           Once all the data has been input, reports are prepared for review at different  
2           levels of responsibility up to and including the Management Committee,  
3           which normally takes place in June of each year.

4

5           **Load, Fuel and Power Purchase Forecasts** - The short-term load forecast  
6           is received from Systems Planning department in May. Using existing rates,  
7           the preliminary revenue figure is obtained. The hydraulic/thermal split and  
8           related fuel information is received from the Operations department in early  
9           June. All information on fuel, load, and revenue is input to the Rate  
10          Stabilization Plan (RSP). The final output is the finalized fuel budget (net of  
11          recoveries through the RSP) and the finalized load forecast.

12

13          Power purchase estimates are provided to the Budgeting department in June  
14          by the Operations Planning department. These estimates are based on the  
15          latest load forecast for Labrador, the contract for recall of power from  
16          CF(L)Co, and current non-utility generators (NUGS) contracts.

17

18          **Depreciation Budget** - Based on the latest capital budget and the most  
19          recent information regarding work in process and estimates of in-service  
20          dates, the Plant Ledger department will prepare the Depreciation expense  
21          budget by mid-June.

22

23          **Revenue / Interest Budget** - The load forecast generated above is then  
24          computed at the existing approved PUB rates to determine the revenue  
25          budget. Based on the operating costs and fuel budgets, a monthly cash flow  
26          forecast is prepared which is provided to the Treasury Department for input  
27          to an interest model. Information regarding existing debt and future

1 borrowing requirements are also inputs to the model. The output of the  
2 model is an interest expense budget and an estimate of the debt guarantee  
3 fee.

4

5 **Review & Approval** - All elements of the operating budget are now  
6 combined. At this point, a final budgeted net income statement and  
7 budgeted balance sheet is prepared for review by the Management  
8 Committee in September of each year.

9

10 During the Management Committee review, further clarification may be  
11 required on various items. Explanations are provided by the Budget  
12 Department. Any revisions to the budget as a result of the Management  
13 Committee review are then made.

14

15 The operating and capital budgets are combined at this point, and are  
16 presented to the Board of Directors for review and approval in October of  
17 each year. Once the Board has approved the budget, a copy is sent to the  
18 Minister of Energy.

1 Q. Section 80 of the *Public Utilities Act* states that a utility “is entitled to earn  
2 annually a just and reasonable return as determined by the board on the rate  
3 base as fixed and determined by the board”. In Hydro’s opinion, would  
4 Section 80 allow rates to be set using an interest coverage model? If not,  
5 why not (KCM, page 27, lines 10-18)?  
6  
7

8 A. No. “Just and reasonable” return is typically estimated by reference to three  
9 standards. Ability to attract capital on reasonable terms; maintenance of  
10 creditworthiness; and opportunity to earn returns commensurate with those  
11 of alternative investments of comparable risk. An interest coverage model  
12 does not address the third standard at all, and the first only in a narrow  
13 sense. Interest coverage can be one test of whether the return allowed is  
14 just and reasonable, but it cannot be the point of departure for estimating a  
15 just and reasonable return.

1 Q. Provide the PUB Order which is relied upon at WEW, page 3, lines 19-22  
2 which states “That portion of the costs previously paid by Hydro’s Island  
3 Industrial Customers for the rural subsidy must be allocated to Hydro’s other  
4 customers by Order of the Board”.

5

6

7 A. The statement is not intended to refer to an existing Order of the Board. It  
8 refers to the fact that the costs, previously paid by Hydro’s Island Industrial  
9 Customers for the rural subsidy, may only be allocated to other customers of  
10 Hydro by the Public Utilities Board. This is one of the subject matters of the  
11 Application, which is to be dealt with by the Board.



- 1 Q. Provide details of the determination of the rate proposed for Interruptible A,  
 2 Emergency Power and Exceptional Power (PRH, Schedule I).  
 3  
 4  
 5 A. The demand charge portion of the Industrial Non-firm Rate is not a  
 6 specifically calculated, cost-based charge. Rather it is a charge to reflect  
 7 some value of the generation plant in place to provide the non-firm service.  
 8 The calculation below reflects the demand related production costs adjusted  
 9 to remove a portion of the cost that is representative of the cost of providing  
 10 the reserve margin associated with providing firm supply. The actual rate  
 11 being proposed is \$1.50 as it reflects a reasonable value in light of the  
 12 calculation below. The energy charge portion is to recover the fuel related  
 13 costs of providing the non-firm energy.

	<b>Production Demand Costs</b>		
	<b>Hydraulic</b>	<b>Thermal</b>	<b>Total</b>
<b>Depreciation Expense per COS Sch. 2.5A</b>			
<b>Production</b>	\$ 1,301,396	\$ 2,974,974	\$ 4,276,370
<b>Trans/Term Stations</b>	351,186	198,108	549,294
<b>Sub-Total</b>			\$ 4,825,664
<b>O&amp;M Expenses per COS Sch. 2.4A</b>			
<b>Production</b>	\$ 3,013,873	\$ 10,733,870	\$ 13,747,743
<b>Trans/Term Stations</b>	625,417	287,370	912,787
<b>Overheads</b>			11,401,822
<b>Sub-Total</b>			\$ 26,062,352
<b>Total</b>			\$ 30,888,016
<b>System Firm Peak (kW) per COS Sch. 4.2</b>			1,259,335
<b>Average annual cost per kW</b>			\$ 24.53
<b>Reserve Adj @ 18.5% per kW</b>			(4.54)
<b>Net Annual Cost per kW</b>			\$ 19.99
<b>Net Monthly Cost per kW</b>			\$ 1.67