P.U. 6 (1991)

Order # 6
December 4, 1991

IN THE MATTER OF THE PUBLIC UTILITIES ACT, 1989

AND

IN THE MATTER OF THE APPLICATION OF NEWFOUNDLAND LIGHT & POWER CO. LIMITED FOR AN ORDER:

(i) fixing and determining a rate base;
(ii) determining a just and reasonable return;
(iii) determining rates of depreciation;
(iv) approving a revised schedule of rates, tolls and charges; and,
(v) approving revision to the rules and regulations.

THE APPLICATION

On July 23, 1991, Newfoundland Light & Power Co. Limited (NP) filed an application which was amended on September 9 and October 4, 1991, requesting an Order of the Board:

(a) fixing and determining the average rate base of NP for the year ended December 31, 1989 at $364,597,000 and for the year ended December 31, 1990 at $402,118,000;

(b) fixing and determining estimated average rate bases for NP for the year ending December 31, 1991 at $436,438,000 and for the year ending December 31, 1992 at $460,603,000;

(c) determining a just and reasonable rate of return on average rate base in the range of 11.13% to 11.37% based on a range of rate of return on average common equity of 13.5% to 14.0%;

(d) approving revised rates of depreciation for the property of NP for the year 1991;

(e) approving the revised Schedule of Rates, Tolls and Charges to be effective for service provided on and after November 1, 1991;

(f) approving the revisions to NP's Rules and Regulations to be effective November 1, 1991;

(g) granting such alternate or additional relief as the Board after consideration of NP's submission and all relevant matters shall deem fit and proper in the circumstances.

At the same time as NP submitted its application it filed with the Board the evidence and exhibits it intended to enter through its witnesses at the public hearing. Notice of the application was given in newspapers circulated in NP's service territory and in the

advertisement, the Board gave notice that it would conduct Phase I of the Hearing on the application in its Hearings Room, St. John's on August 15, 1991.

The Phase I Hearing was called by the Board to bring together NP and the Intervenors of record at the time to give each of them an opportunity to indicate the nature of their evidence, to obtain or give notice of their intentions to obtain information, to indicate whether they intended to call expert witnesses and to agree on a time, date and place for commencement of Phase II of the Hearing into the application.

At Phase I of the Hearing, Joan Myles, LL.B., appeared for NP; Geoffrey Young, LL.B., appeared for Newfoundland and Labrador Hydro (Hydro); Alvin Hewlett, M.H.A., represented the Progressive Conservative Caucus, House of Assembly; Jeffrey Brace, LL.B., was present as The Consumer Advocate and Sean Hanrahan, LL.B., was present as Counsel to the Board.

It was decided to commence Phase II of the Hearing in the Hearings Room of the Board at 9:30 A.M. on September 30, 1991, and subsequent to the Phase I Hearing, advertisements were placed in the newspapers circulated in NP's service territory informing the public of the time, date and place for the commencement of the Phase II Hearing.

The application was heard by the Board on September 30, October 1, 2, 3, 4, 7, 8 and 10, 1991.

Joan Myles, LL.B., appeared as Counsel for NP.
Geoffrey Young, LL.B., appeared as Counsel for Hydro;
Evan Kipnis, LL.B., appeared as Counsel for Newfoundland Telephone Company Limited (NT);
Jeffrey Brace, LL.B., was present as the Consumer Advocate;
Linda Hyde was present as a private citizen; and
Alvin Hewlett, M.H.A., represented the Progressive Conservative Caucus, House of Assembly,
who are sometimes referred to as the Intervenors.

During the Hearing the Board was assisted by its Counsel, Sean Hanrahan, LL.B., and Raymond G. Noseworthy of Noseworthy, Keating, Howard and Kung, the Board's accounting consultants.

Evidence was given for NP by the following officers and management of NP:
A.F. Ryan, President and Chief Executive Officer;
M.J. Erbland, Vice-President, Technical Services;
J.G. Evans, Vice-President, Corporate Services;
K.S. Warr, Vice-President, Finance & Treasury;
P.R. Hamilton, Manager, Rates & Forecast.

NP also called as a witness:
Dr. R.A. Morin, Professor of Finance at the College of Business of Finance at the College of Business Administration, Georgia State University and Professor of Finance for Regulated

Industry at the Center for the Study of Regulated Industry at Georgia State University.

The Board called as a witness:
R.G. Noseworthy (Noseworthy).

Briefs opposing the application were presented by:

Dr. Morris Saldov, Private Citizen & Associate Professor, MUN;
Alvin Hewlett, M.H.A., Energy Opposition Critic;
Linda Hyde, Private Citizen;
Beverly Brown, Group Against Poverty;
Jim Mayo, Town Manager, Town of Marystown;
Louis Bailey, Town Manager, Town of Burin;
Ron McArthur, City Manager, City of Mount Pearl;
Jerome Walsh, Mayor, Town of Marystown;
G. Carew, Newfoundland and Labrador Pensioners and Senior Citizens Federation;
Margaret Acreman, Executive Director, Single Parents' Association of Newfoundland;
Agatha Walsh, Town Manager, Town of Pouch Cove; also representing Newfoundland and Labrador Federation of Municipalities;
Ruth Metcalfe, Treasurer, Association of Homes for Special Care for Newfoundland and Labrador;
Eric Norman, Consumers' Organization of Disabled People of Newfoundland and Labrador.

Briefs were presented by Jeffrey Brace on behalf of the following:

Town of St. Anthony;
The HUB;
National Anti-Poverty Organization;
City of Corner Brook;
Industrial Union of Marine and General Workers of Canada
Diocese of Eastern Newfoundland - Anglican Church of Canada
Newfoundland and Labrador Federation of Agriculture.

Twenty-two (22) Petitions with 5,192 names and sixty-nine (69) letters were received by the Board, all opposing the application of NP.

The Board has given careful consideration to all the evidence and representations submitted but reference will be made herein to only those matters required to explain the reasons for its Decision.

STATUTORY GUIDELINES

The Board believes it appropriate at the outset to outline how it views its responsibilities.

Section 37(1) of The Public Utilities Act states "Every public utility shall furnish service and facilities which are reasonably safe and adequate and in all respects just and reasonable."

Section 80(1) and (2) of the Public Utilities Act states, inter alia:

"80.-(1) Every public utility is entitled to earn annually a just and reasonable return as determined by the Board on the rate base as fixed and determined by the Board.....

(2) The return shall be in addition to those expenses that the Board may allow as reasonable and prudent and properly chargeable to operating account, and to all just allowances made by the Board according to this Act and the rules and regulations of the Board."

Section 73(1) and (2) of the Public Utilities Act states:

"73.1(1) All tolls, rates and charges shall always, under substantially similar circumstances and conditions in respect of service of the same description, be charged equally to all persons and at the same rate and the Board may by regulation declare what shall constitute substantially similar circumstances and conditions.

(2) The taking of tolls, rates and charges contrary to this section and the regulations is prohibited."

Section 3 of The Electrical Power Control Act states, inter alia:

"It is declared to be the policy of the province that the rates to be charged, either generally or under specific contracts, for the supply of power within the province.........

(c) should provide sufficient revenue to the supplier of the power to enable it

(i) in the case of a private company, to earn a just and reasonable return as construed under The Public Utilities Act, 1989.....

so that it is able to achieve and maintain a sound credit rating in the financial markets of the world."

The Board interprets the foregoing statutory provisions to mean that the Board has the responsibility to ensure that public utilities provide reasonably adequate service responsive to public need.

Public utilities differ from unregulated businesses in that they do not have the discretion to reduce or deny services when they are no longer profitable or to defer spending when capital or materials are obtainable only at inflated costs. Demands to serve new electrical loads or increase existing ones cannot be denied in order to moderate rate increases or maintain existing rates for indefinite periods.

As well, because utilities have the statutory obligation to provide service without discrimination when required by public convenience and necessity, they in turn have the statutory right to

earn a reasonable return on their capital investment and the recovery of their prudent operating expenses. In addition to delineating the obligations and rights of public utilities, the statutes also enact the criterion to be used by the Board in determining a reasonable return which is, that which enables public utilities to achieve and maintain a sound credit rating so that they can attract the capital required to enable them to discharge their service obligations.

While Section 3 of The Electrical Power Control Act grants public utilities the right to charge rates which will provide sufficient revenue to enable them to achieve and maintain a sound credit rating, it is not practical to implement this policy in such a way as to guarantee either a reasonable rate of return or a sound credit rating. The achievement of these objectives is subject to business risks over which neither the public utility nor the Board more particularly have the power to control. Furthermore, there is always a time lag between the time public utilities realize that their return and credit rating are in jeopardy and the receipt of Board approval for an increase in rates. It is because of this business risk that public utilities are unable to attract new capital at risk free rates enjoyed by Government of Canada bonds. Nevertheless, in so far as it is practical, it is the duty of the Board to implement the policy prescribed in the statutes.

The Board realizes that economic conditions can cause public utilities to over earn as well as under earn the allowed rate of return. Accordingly, in implementing the statutory policy outlined above the Board requires public utilities to set up a revenue rebate account into which is credited any earnings in excess of those approved by the Board. These excess earnings must be returned to the customer or used to reduce the revenue requirements of the public utility in the following year. If, on the other hand, a privately held public utility under earns in a financial year it is not recoverable.

It was argued during the hearings that because of the current economic recession, individuals and non-regulated firms alike are suffering reduced earnings and credit ratings and public utilities should not therefore enjoy a preferred financial standing. A public hearing before this Board is the wrong forum in which to make such arguments. The Board, like the public utilities is bound by the statutes. Furthermore, if the relevant criteria were changed for the purpose of empowering the Board to take the financial ability of customers to pay into account in fixing rates for public utility service, this would be a social issue which the Board does not have the expertise to judge.

It is not possible to generalize about the ability of individual firms or domestic customers to pay increased rates; some firms may continue to be profitable while others may be on the verge of bankruptcy; the majority of domestic customers continue to be employed at good wage levels while others are retired with limited income or unemployed and depend on a variety of social assistance programs for their incomes. Are rates to be tailored according to the financial ability of customers to absorb them or are all classes of customers

to be insulated against increased rates at the expense of the bondholders and shareholders of public utilities? If so, who are the bondholders and shareholders and what is their financial ability to absorb the burden? Even if the Board had evidence which enabled it to determine the financial ability of customers to pay, in order to fix rates on this basis, it would also be necessary for the Board to assume the power of taxation to enable it to fix lower rates for low income customers and thereby transfer a greater burden of cost of service to either high income customers or the bondholders and shareholders of the public utilities.

The Board's responsibility is to approve the expenses of NP that it considers reasonable and prudent and to allow NP the opportunity to earn the minimum rate of return to provide it with sufficient revenue so that it is able to achieve and maintain a sound credit rating in the financial markets of the world.

Accordingly, the Board will decide this application without regard for the ability to pay criterion advocated by the Intervenors.

BASIS OF THE APPLICATION

By Order No. P.U. 1 (1990) the Board ordered that the average rate base of NP for the year ending December 31, 1987, be $315,679,000 and for the year ending December 31, 1988, at $337,802,000 and that its estimated average rate base for the years 1989 and 1990 be fixed at $365,303,000 and $401,368,000, respectively.

Since the issuance of P.U. 1 (1990) NP has added certain properties and retired others and changes in accumulated depreciation, contribution in aid of construction, deferred income taxes, weather normalization reserve, working capital allowance, and materials and supplies have affected the amount of the rate base as it was fixed and determined and NP proposes that the average rate base for the years ended December 31, 1989 and December 31, 1990 be fixed and determined at $364,597,000 and $402,118,000 respectively and that estimated average rate base for the year ending December 31, 1991 be $436,438,000 and for the year ending December 31, 1992 be $460,603,000.

By Order No. P.U. 1 (1990), the Board determined that a just and reasonable return for NP on the average rate base for 1990 was in the range of 11.58% to 11.95% based on the existing range for rate of return on average common equity of 13.7% to 14.2%.

NP submits that the rate of return required by NP so that it can earn annually a just and reasonable return on the rate base as fixed and determined by the Board and maintain a sound credit rating in the financial markets of the world, on average rate base, lies in the range of 11.13% to 11.37% based on a range of rate of return on average common equity of 13.5% to 14.0%.

In order to earn the just and reasonable return to which it is entitled under Section 80 of the Act, NP will require additional revenue in 1991 and 1992. NP has computed its additional revenue requirement for 1992 at $10,437,000 based on a rate of return on average

common equity of 13.75%.

By Order No. P.U. 17 (1987), the Board determined rates of depreciation for the property of NP based on data to the end of 1985. NP proposes that rates of depreciation be revised based on data to the end of 1990 with the revised rates effective for 1992.

By Order No. P.U. 1 (1990), the Board approved a Schedule of Rates, Tolls and Charges for service provided by NP. To obtain its revenue requirement, NP proposes to implement a revised Schedule of Rates, Tolls and Charges which would result in an overall average increase in revenue from rates of 3.15%. The revised Schedule would have been effective for service provided on and after November 1, 1991.

By Order No. P.U. 1 (1990), the Board approved changes in the Rules and Regulations. NP proposed to implement on November 1, 1991, changes to the Rules and Regulations.

TEST YEAR

NP has used the calendar year 1992 for its forecasts and have submitted revenue, expenses, capital expenditures and earnings on this basis.

We are satisfied from the report of Noseworthy put into evidence as R.N. # 1, that reliance can be placed on NP's forecasts for the proposed test year.

We accept as the test year, the calendar year 1992 for the purposes of this application.

CAPITAL EXPENDITURE BUDGET

The total number of customers supplied at the end of 1990 was 192,365. This represents a growth of 2.0% over 1989. The growth in 1991 and 1992 is estimated to be 2.2% and 2.5%, respectively.

The annual average normalized use of electricity for domestic customers excluding electric heating was 8764 kwh in 1990. This use has increased each year and is expected to increase in 1991 to 8866 kwh and to 9056 kwh in 1992. In 1979 it was 6820 kwh.

The annual average normalized use of domestic customers with electric heating declined from approximately 22,500 kwh in 1979 to 19,089 in 1986. In 1990 it increased to 20,611 kwh but is estimated to decrease to 20,254 kwh in 1991 and 20,061 in 1992.

In 1988, 73.5% of domestic customers had electric heat. This percentage declined to 70.6% in 1990. It is forecast to increase to 71.0% in 1991 and 73.5% in 1992.

The bulk of NP's energy requirements are supplied by Hydro which supplied 90.84% in 1990 and is estimated to supply 90.96% in 1991 and 91.11% in 1992.

CAPITAL EXPENDITURES SINCE 1984

Year	Amount
1984	$ 30,615,000
1985	32,990,000
1986	32,184,000
1987	38,881,000
1988	46,598,000
1989	56,304,000
1990	67,073,000
Forecast 1991	49,710,000
Forecast 1992	74,034,000.

In its financial model for financing and rate making purposes, NP have reduced its capital expenditure forecast approximately 4% in 1991 and approximately 8% in 1992 to reflect the fact that further reviews of each capital project are carried out prior to its actual undertaking, resulting in some project deferrals. Also some projects invariably carry over into the following year because of late delivery of material.

Mr. Erbland stated that the decrease in capital expenditures from $67.1 Million in 1990 to a forecast $49.7 Million in 1991 is a reflection of poor economic times.

Since capital expenditures are made to satisfy the long term requirements of customers, it is generally desirable that capital expenditures remain reasonably stable from year to year. Under exceptional circumstances, however, short term fluctuations may be warranted. During preparation of the 1991 capital budget, general economic conditions had deteriorated to the degree that this became a significant consideration. As a consequence, NP decided to restrict its level of 1991 capital works program thereby postponing the need for a rate increase. Projects were evaluated on the basis of need and a priority ranking established. Some projects that would have normally been done in 1991 were delayed, although this was done only in those circumstances where it would not jeopardize the long term best interests of NP or its customers.
This resulted in the pace of system improvement expenditures being slowed in the 1991 forecast. While NP believes these reductions are a prudent reflection of the current economy, it has increased the risk that some levels of service might decline. NP would have found it more difficult to maintain current levels of service if capital investments had been further reduced in 1991.

The increase in the capital expenditure forecast from $49.7 Million in 1991 to $74.0 Million in 1992 is due largely to a renewed commitment to cost effective generation projects and the resumption of a more traditional pace for system improvement expenditures.

Energy Supply expenditures are forecast to increase by $20 Million in 1992 over the 1991 forecast. These expenditures are associated with generating plant projects designed to provide improved

reliability and to meet the energy and capacity requirements of NP's customers. The major item is $12 Million to begin construction of a new 25 MW gas turbine at Port Aux Basques.

There is a $3.0 Million increase in the substation account, more than half of which is associated with the purchase of a mobile transformer. This will provide contingency back-up to equipment currently in service. The other half of the substation increase is driven by the need to construct a new substation near Colliers on the Avalon Peninsula.

Major items included in the capital forecast for 1991 are: a $1.0 Million project to replace the surge tank, governor and other equipment at Pierres Brook plant; $1.2 Million to construct a new transmission circuit from Catalina to Bonavista; $0.9 Million to provide additional transformer capacity at Pulpit Rock substation in Torbay; $0.8 Million to provide additional transformer capacity at Sunnyside to service the Bull Arm site; $1.1 Million to improve reliability by replacing faulty insulators on various transmission lines and $1.0 Million to extend the capabilities of the Company's supervisory control and data acquisition system (SCADA). The SCADA system allows the remote control and monitoring of power system equipment thereby improving reliability and efficiency.

Major projects forecast in 1992 include: $12 Million to provide for the construction of the new gas turbine capacity at Port Aux Basques, this project will carry into 1993 at a total estimated cost of $24 Million; $4.1 Million to replace the 39 year old penstock at Seal Cove plant; $0.6 Million to refurbish the 16 year old gas turbine at Greenhill and $0.9 Million to refurbish the 22 year old gas turbine at Salt Pond. Other projects include $1.1 Million to complete engineering and begin construction of a new 4 MW hydro plant on Rose Blanche Brook. This project is forecast for completion in 1993 at a total cost of just under $11 Million.

$1.5 Million is required to construct the new substation at Colliers in Conception Bay; $0.7 Million to purchase a power transformer for a new substation at North West Brook near Clarenville; $0.8 Million to provide increased transformer capacity at Springdale and $0.6 Million to upgrade the VHF radio system on the Avalon and Burin Peninsulas.

$0.8 Million will be spent in 1992 to continue replacement of transmission line insulators which are faulty. By the end of 1994 all such insulators will have been replaced on critical lines (that is, radial lines and other lines where the loss of an insulator would result in customer outages).

Capital expenditures for information systems include $3.2 Million to continue work on the Customer Service System (CSS) in 1991. $0.9 Million has been provided in 1991 to secure additional computer hardware and $1.0 Million for software other than CSS. $0.5 Million has been provided for computer hardware in 1992 and $2.0 Million for software which includes approximately $0.4 Million for CSS.

The Board accepts the reduction of NLP's forecast of capital expenditures in 1991 and 1992 for rate making purposes as a realistic effort to have its capital expenditure forecasts more closely align with the ultimate capital expenditure.

The funds required by NP for 1992 and its external financial plans assuming proposed rates are shown below:

Capital Expenditure	$68,009,000
Preferred Dividends	2,250,000
Common Dividends	16,545,000
Decrease in Bank Loans	18,731,000
Reduction in Long Term Debt	10,357,000
Purchase of Preferred Shares	600,000
	$116,492,000
Less: Funds Generated Internally	64,883,000
	$51,609,000

EXTERNAL FINANCING PLANS

Common Share Issue	$10,300,000
First Mortgage Bond Issue	39,450,000
Other Items*	1,859,000
	$51,609,000

* Includes contribution in aid of construction, salvage of plant retired (net).

NP has 2 separate runs of fibre optic cable in St. John's, one connecting its substation at Stamps Lane with its substation at Memorial University and the second one connects the Kenmount Road Office Building with its Topsail Road Office Building with spurs at the Duffy Place Regional Facility and at the Unitel Site on Firewood Hill.

Mr. Erbland states that the principal use of the Kenmount Road, Topsail Road fibre facility is to provide back-up to NP's mainframe computer system, as well as to provide communication. NP has installed a fibre connection to Unitel's microwave tower at Firewood Hill in order to access NP's own VHF radio system across the province. The fibre network is a high capacity single mode fibre. There are a total of 24 fibres in this system.

Mr. Erbland said that 2 fibres are used for VHF radio for more communications and 4 for data transmission for NP's mainframe computer.

Mr. Kipnis argued that with complete system back-up, which would be unnecessary for 2 separate functions, there is an excess capacity

of 12 cables.

The fibre run from Stamps Lane substation contains 18 fibre optic cables, 15 of which are available for future use. NP does not have any plans for the unused capacity.

Mr. Kipnis stated that NP's capital spending on communications contains some incremental spending beyond the needs of NP.

While the Board is concerned that NP might invest in assets which are not presently used and useful, our examination of records confirm that the incremental cost of excess fibres in 1990 and 1991 is .7% [NTC-1(6)] or $41,000, which is not material and does not justify a change in the approved rate base.

On the basis of the evidence filed by NP, the testimony of M. Erbland under cross-examination and the report of Noseworthy, we accept NP's forecast of capital expenditure for 1991 and 1992 and find that this expenditure is required to enable it to meet its service obligations.

ACCOUNTING MATTERS

LOSS ON FOREIGN EXCHANGE

At the 1989 hearing, NP proposed that foreign exchange losses be deferred and amortized over a reasonable period and specifically proposed that an expected loss of $360,000 in 1990 be amortized over two years. The Board approved that proposal. In 1992 NP anticipates a loss on foreign exchange of approximately $1,200,000 on an $8,000,000 issue. Because of the substantial amount, NP proposes a five-year amortization period beginning in the month of loss realization.

The Board has no evidence before it to suggest the financial management related to these losses was flawed or imprudent. It is not good enough to say after the fact, with the benefit of hindsight, that a series of complex and risky financial instruments should have been employed. No evidence was given to suggest dates, transactions and financing partners that could have been used which would have eliminated these losses.

The Board finds that a large foreign exchange loss amounting to $1,000,000 or more should be amortized over a five year period.

DEMAND SIDE MANAGEMENT

Accounting for Demand Side Management (DSM) initiatives is relatively new in Canada. A recent survey of Canadian utilities on this matter indicates that accounting treatment for DSM varies from immediate expensing to capitalizing as a fixed asset and depreciating over the useful life of the project. Since DSM is relatively new to NP, experience with the expected life of future benefits of DSM has not been established. Since benefits will be realized over time, NP states it would be inappropriate to write off all the costs

immediately. For DSM costs of $624,000 in 1991 and $1,070,650 in 1992, NP proposes that a conservative approach which is fair and reasonable to rate payers would be to defer the costs and write off the 1991 costs over two years and the 1992 costs over five years. Only a portion of labour costs have been deferred.

The Board finds that the deferral period for 1991 and 1992 DSM costs should be five years with the exception of any labour costs associated with annual recurring DSM activities should be expensed in the year those activities were conducted. The Company should survey Canadian utilities on this matter before the next hearing and provide a report to the Board on their proposed accounting policy in the future in light of any generally accepted accounting practices seen to be in place at that time.

GENERAL EXPENSES CAPITALIZED POLICY

During the 1989 hearing, NP informed the Board that it was studying the general expenses capitalized (GEC) policy because there were indications that NP is capitalizing costs that are treated as expenses by most utilities. NP has completed the study. Currently, NP allocates approximately $11 Million to GEC on an annual basis. Based on the results of the study, NP believe that the annual allocation to GEC is $3 Million to $4 Million higher than would be the case if NP's GEC policy were more in line with other Canadian utilities. This difference is substantial and should be corrected over time. For 1992 and each year until the next rate application, NP proposes that the annual allocation to GEC be reduced by $1 Million. A further review would be necessary at the hearing of the next rate application.

The Board will not allow the $1 Million reduction in the annual allocation to GEC at this time. NP can present a more detailed and documented proposal at the next hearing.

DEPRECIATION STUDY

A Depreciation Study has been completed by Monenco Consultants Limited in accordance with Board Order No: P.U. 17 (1987).

Results of the Study indicate that estimated accumulated depreciation at 31 December 1990 is only 1.2% higher than the amount of accumulated depreciation recorded in NP's accounts and confirms that the amount recorded in the accounts is a reasonable allowance. Based on these results NP proposes that the new rates of depreciation be approved by the Board effective for 1991.

Revised financial forecasts include depreciation based on the proposed depreciation rates for 1991 and 1992. These revisions mean a decrease of $1,213,000 in depreciation in 1991 and $1,109,000 in 1992 when compared to the amounts previously forecast.

The Board approves the depreciation rates as set forth in the

Depreciation Study and as used in the calculation of depreciation in the revised evidence.

CUSTOMER SERVICE SYSTEM

NP recognized prior to the 1989 rate hearing the Company's existing billing and customer enquiry system had reached the end of its useful life. Replacing its existing system requires a large capital investment and would have a significant impact on administrative costs annually.

Mr. Evans testified that before a decision was made on the type of CSS to develop, twelve utilities were contacted and of the twelve, five were actually visited (refer to Consent 14). With the information from these visits and the Company's analysis, NP decided to evaluate CSS options. The analysis relating to this is summarized in the Management Information System (MIS) Report filed with the Board, dated February, 1991 (Consent 8).

Anderson Consulting provided a comparison of two options, a package system and a custom designed system. The nominal dollar cost/benefit analysis is contained in Schedule I-1 of the Appendices to the MIS Report.

Mr. Evans states on p. 275 of the transcript during cross-examination:

"What we did in this particular instance was calculate an annual savings to be derived and just looked at a simple pay back on that basis without inflating and present worthing."

It is striking that on the one hand the committee recognized the interest benefit to NP of reduced lag time in their analysis, but ignored the time value of money overall in evaluating the project.

As a result of that revelation, NP in response to a request by Hydro prepared Consent 19, which had some kind of Net Present Value (NPV) analysis. However, it is unclear what interest discount rate was used, whether benefits are discounted monthly, quarterly, annually or some other method. Nor is it very clear what the alternatives are supposed to represent.

The Board took into account the analysis of benefits identified in Schedule I-1 not amending them to reflect higher annual figures to include the benefit of hand held meter readers, but using only the benefits accepted by Anderson Consulting. We used a 20 year life, (refer to Evans' p. 277 of transcript), a discount rate of 12%, (Young p. 276) an annual discount of benefits, (to be conservative) and accepted the Company's estimated cost of the project in Consent 19 of $7,521,005. Our analysis introduced cost savings from avoiding $250,000 in year one to document the old system and we introduced cost savings from avoiding additional labour costs needed to run the old system (see Consent 19). On this basis the project would have

conservatively a positive net present value of approximately $470,000.

This positive net present worth would not occur if the useful life of the system was less than 17.5 years conservatively.

As the Company is aware, a simple pay back method does not account for the time value of money and should not be used for long life projects. The Board's analysis does not benefit from the detailed knowledge of benefits accruing from the system, nor inflation adjusted numbers as you forecast cost and benefits from year 1 - 20. Therefore it is possible and likely after the post implementation committee's update that the NPV will be much higher once a careful incremental cost/benefit analysis is undertaken as it compares to the status quo. This would also reduce the years required to break even. Our analysis povides the worst possible scenario given the evidence.

Other benefits identified, but not quantified, include reduced annual maintenance cost of software (Evans p. 244 transcript), documentation of software and hardware supports that contention. Mr. Evans also states on p 274 of the transcript there are updated figures for the labour savings for regular positions in NP offices and the cash flow (benefits) from hand held system.

Non monetary benefits include ability to work with a documented system (Evans p. 244 of transcript), the "old" system was in jeopardy of failing leading to fear "we would not be able to get bills out." (Evans p. 245 of transcript), customer account information will be more current since it will be entered on-line (Evans p. 245 of transcript), customer correspondence on overdue accounts would be automated in the new system instead of manually prepared (Evans p. 245 of transcript), the system is more flexible leading to better efficiency in the future given the demands of the dynamic nature of customer services (Evans p. 246 of transcript) and this system can be readily modified to incorporate DSM programs and new customer rate designs.

CONCLUSION

Mr. Evans' testimony on p. 254 of the transcript states, "Unless a project passes a cost benefit analysis we (NP) will not enter into it."

The review of this issue has cast some doubt on the method of cost benefit analysis used by the Company to evaluate such projects. It is not appropriate, in the opinion of the Board, for the Company to use simple pay back analysis without regard for inflation and present worth. It is unsettling to see the analysis of this project show interest benefit from reduced lag time in the billing process but yet not recognize the time value of money. Using the data in the simple pay back method in Schedule I-1 shows the project breaking even at year eight. This data with a discount rate of 12% and a cost of $7.5 million would have a negative net worth once time value of money is considered and a 10 year life is used. Page 218 of the transcript indicates the Company's knowledge and acceptance of net

present worth of assets.

The analysis used by the Company to make their initial decision is flawed by the Company's own admission. It did not reflect incremental cost saving benefits from not keeping the existing system, such as $90,000 per year in labour would be required plus a further $30,000 increase in labour each year from 1995 onwards, it does not reflect $250,000 in estimated cost to document the existing system, it does not show its intended useful life of 20 years. These flaws were all identified and part of evidence provided in Consent 19.

This project is not a small project. While a report was prepared for the Board, it still did not provide the analysis generally accepted in finance for over 15 years, namely a NPV analysis of incremental costs and benefits. The Board has re-worked the evidence provided and is comfortable that this project conservatively has a NPV of approximately $470,000 if a 20 year life is used. Break even would occur at 17.5 years (as compared to eight years used by Mr. Evans).

The Board orders NP to prepare a NPV analysis of the CSS, post implementation using an incremental cost/benefit approach and submit this report to the Board before the next rate hearing. This report must include reasonable assumptions on reduced operating maintenance of the new system versus projected operating maintenance of the old system, the practical and expected used and useful life of the system and any additional costs and benefits such as the benefits of hand held meter readers. It should also use reasonable assumptions on labour costs forecasted for status quo and for the new system. Justification for the discounted cash flow discount rate and period (monthly, quarterly, semi-annually <u>or</u> annually) should be given.

A concise description of qualitative factors also contributing to a decision to introduce a new CSS must also be provided.

In future, any expenditure of a material amount should be evaluated by the Company using a NPV methodology and this analysis together with its supporting justification shall be available to the Board upon request. Where a project is not evaluated along side other acceptable alternatives and/or if the project does not produce a positive NPV, sufficient appropriate evidence must be provided to justify implementation. In such instances the Board must be appraised of the matter in advance.

With respect to prudency of the acquisition the Board considered its own NPV analysis and found comfort in the identified benefits suggested during the course of cross-examination that have not been quantified. The Board also feels that a quarterly discount model would reflect the reality of the cash flow of annual benefits better. If such analysis had been performed it is self evident that the NPV would increase. It is also accepted by the Board that the old system has been in use for over 20 years. It is not capable of adapting to changes in the customer service environment and does not efficiently operate with its dependence on manual subsystems and dated financial account information. The MIS Report of February, 1991 does provide

sufficient information to supplement the other direct evidence provided during the hearing on the requirements of the system. The Board believes the acquisition was prudent in spite of the problems cited in the analysis leading up to the development decision. A final decision on cost permitted in rate base will be made at the next hearing with the benefits of (i) a post implementation cost/benefit analysis using NPV methodology and as described above, and (ii) any evidence provided during the course of that hearing.

INTER-CORPORATE TRANSACTIONS

Inter-corporate transactions and related party transactions generally are a specific area of financial reporting, with their own accounting recommendations over and above generally accepted accounting principles for arms length transactions. To complement the reporting requirements and audit of these figures, the Board's financial consultant also has reviewed such transactions under item 8 of the Consultant's terms of reference for this hearing. (See page 1 of RN-1.)

Inter-corporate transactions of NP are reviewed in a variety of manners during the year and before a hearing. They are reviewed as part of a total population of transactions by the company's internal auditors, external auditors, and the Board's Financial Consultant both annually and again in review before a hearing. As related party transactions they are identified and reviewed specifically by the same three parties. The CICA handbook sets out accounting requirements in section 3840 of the CICA HANDBOOK.

During NTC cross examination of Mr. Warr, Mr. Warr states with respect to inter-corporate transactions (see page 399 of the transcript),

"Yes, they (inter-corporate transactions) are tracked on a regular basis.........In the case of Newfoundland Power any charges from Fortis to us ends up at the end of the year before the company's audit committee for full assessment."

Mr. Warr discusses on page 400 of the transcript, there are no set guidelines on what is reported to the Audit Committee with respect to inter-corporate transactions. Overall the reporting and review of such transactions are not formalized but left up to the judgement of the company as to what constitutes a significant transaction that should be scrutinized. Once a significant transaction is identified, it would be sent to the Audit Committee and the Executive Committee for consideration.

During final argument NTC focused on two issues, one of which was inter-corporate transactions. NTC cited transactions between Fortis Inc. and NP as examples. Fortis Inc. is the sole common shareholder of NP and both companies have some common management personnel and directors. This relationship brings with it certain inter-corporate transactions that because of their non-arms length nature require special attention. NTC noted that one of Fortis Inc's

recent ventures was to establish a partnership with UNITEL Communications Inc. of Toronto. Fortis has taken on varied directions in addition to its investment in NP. A review of NP and Fortis financial statements indicates that NP outperforms Fortis consistently.

NTC argues on page 819 of the transcript:

"....It's become very important that appropriate safeguards be established to ensure that all inter-corporate transactions can withstand regulatory scrutiny. That they are not an improper burden on the electricity consumers of this province....."

This area of concern is acknowledged by the Board. As the activity of Fortis expands, the opportunity for increased inter-corporate transactions will occur. This in and of itself is not a bad thing. It is the absence of arms length character in conducting these transactions that could cause a problem or a perceived problem. Transactions such as the examples given by Mr. Erbland on page 190 of the transcript will require care on NP's part and careful scrutiny by the Board to ensure the best interests of the public prevail.

NTC argues that any lease of NP property or equipment, or any service provided to a related party must be charged at cost plus a mark-up to allow return on NP investment. This profit element is of benefit to the rate payer when a transaction involves services or product from NP to a related party, but would be an added cost when the related party charges NP for services or products.

NTC argues the time has arrived for NP to establish formal regular reporting requirements to the Board of all inter-corporate transactions involving NP. NTC recommends that detailed quarterly reports on intercorporate transactions be submitted to the Board for their review. They recommend that all transactions reflect a reasonable return on investment and not only cost recovery. NTC also recommends that services or product purchased from an affiliate must be cost justified along side bids from other arms length suppliers. The materiality guide line for significant transactions should be $50,000 or more. The Board should also be provided with a contract or agreement associated with any inter-corporate transaction.

The Board has considered the comments and concerns of NTC and also accepts NP's argument that there is no evidence to suggest any difficulty with inter-corporate transactions before the Board during the course of this hearing.

The Board is aware of the sensitivity of related party transactions. Transactions of this nature have been given special consideration by financial accountants for some time now and continue to be deserving of special treatment and consideration.

The Board therefore orders that a quarterly reporting mechanism be put in place whereby NP aggregates all inter-corporate transactions

by the accepted code of accounts, segregating purchases of goods and services from sales of goods and services. This report would be submitted to the Board together with any contracts and agreements signed during that quarter with any related parties. Transactions exceeding $50,000 individually or per annum must be reported separately and compared to the cost of the same transaction from an arms length supplier(s). A description of the nature and the amount of the transaction(s) as well as any amount due to or from the related party must be provided.

NP's Corporate Accounting Manual should be revised to facilitate the recording of related party transactions and to reflect the special accounting status of inter-corporate and related party transactions.

The Board further orders that the Company conduct a study into the financial policies of regulated Canadian utilities with respect to mark up percentages on related party transactions. There was no direct evidence provided to the Board for the purposes of evaluating a percentage, if any, for return on investment relating to an inter-corporate transaction. Therefore, the Board orders the Company to continue applying their current policy of cost recovery as it relates to inter-corporate charges other than the sale of electricity. Sale of electricity would be according to approved rates only.

ADVERTISING

Noseworthy presented the following table and comments:

	Actual			Forecast	
	1988 Net	1989 Net	1990 Gross	1991 Gross	1992 Gross
Advertising	$ 199	$ 255	$ 336	$ 535	$ 779
Transfers to GEC	-	-	(5)	(1)	(1)
Net costs	$ 199	$ 255	$ 331	$ 534	$ 778

"Advertising costs have increased and will continue to increase substantially. NP has been increasing its advertising activity geared towards demand side management and other customer service.

The increase in 1989 was related to the production and placement of five new ads. The 1990 increase of $76,000 was partially related to the production of the Power Smart TV ads to be run in 1991. The 1991 increase of $203,000 resulted in part from the cost of completing the production of the Power Smart ads ($112,000) and the remainder was the cost of advertising the program. The 1992 increase is due to the addition of a marketing program, at a cost of $245,000, promoting

efficient use of appliances and the installation of energy saving devices."

Ms. Hyde argued that while some of NP's advertising may be productive, NP should show restraint at this time. She does not believe that the customers of NP want a massive advertising campaign which will cause an increase in rates.

Mr. Evans' evidence showed that while the total budget for advertising has increased, if the components related to DSM advertising are removed, the level of advertising for other purposes is lower than in previous years.

The Board does not allow advertising expenditures that are solely for corporate image building and do not have any direct link to the supply of service. The Board believes that DSM advertising of NP is in the best interests of its customers.

The Board accepts NP's advertising expense forecasts as reasonable and prudent.

SUPPLEMENTARY PENSION PLAN

NP introduced a supplementary pension plan for its employees in 1989. NP's share of the cost is $325,000 in 1991 and is estimated to be $614,000 in 1992.

Mr. Brace argued that these amounts should be disallowed as the Board had not been informed of the supplementary plan.

The Board accepts NP's explanation that it was an oversight caused by understandable circumstances.

The Board finds that the cost of the supplementary pension plan for employees of NP is a reasonable and prudent expense.

MUNICIPAL TAX SURCHARGE (MTS)

Board Order No. P.U. 1(1990) ordered, inter alia, that:

"On July 1, 1990, NP shall commence implementing a Municipal Tax Surcharge to apply to customers in municipalities imposing municipal taxes in excess of 2.5% of the revenue NP earns in the municipality."

On October 15, 1991, the decision of Cameron J. ordered that the matter will be remitted to the Board for reconsideration following proper notice.

The MTS is no longer in effect until such time as the Order of Cameron J. is dealt with.

RATE BASE

Noseworthy reviewed the calculation of the rate base for 1989 and 1990 and forecast for 1991 and 1992 as shown on page 20 of RN-1. Noseworthy confirmed that the calculations and forecasts are consistent with previous Board orders.

The Board therefore accepts the average rate base of $364,597,000 for the year ending December 31, 1989, the average rate base of $402,118,000 for the year ending December 31, 1990, the estimated average rate base of $436,438,000 for the year ending December 31, 1991 and the estimated average rate base of $460,603,000 for the year ending December 31, 1992, as filed by NP as Exhibits KSW-9 revised page 13 (1989 and 1990) and KSW 16 (1991 and 1992).

RATE OF RETURN

CAPITAL STRUCTURE

NP's rate base is comprised of the Company's net investment in plant used and useful in rendering electrical services. This investment was financed with long term debt, notes payable to chartered banks, preferred shares and common equity.

NP is entitled to earn a just and reasonable rate of return under The Public Utilities Act, 1989, Chapter 37, Section 80. This just and reasonable return is influenced by the proportion of each of the financing components, debt, preference shares and common equity. Other influencing factors are embedded cost of debt and preference shares, the required rate of return on common equity to maintain the common share's marketability and the required interest coverage and fixed charge coverage required to maintain a sound credit rating.

NP's average capital structure during the past five years and proposed for 1991 and 1992 is shown in the following table.

Average Capital Structure

	Debt %	Preference Shares %	Common Equity %
Actual:			
1986	46.8	12.3	40.9
1987	47.8	11.2	41.0
1988	47.8	10.1	42.2
1989	48.1	9.0	42.9
1990	48.9	7.8	43.3
Proposed:			
KSW-16			

1991	48.5	7.0	44.5
1992	47.9	6.4	45.7

NP's proposed capital structure for 1991 and 1992 is 45-50% debt, 5-10% preferred shares and 40-45% common equity. The revised application results in a temporary violation of the proposed plan for the common equity ratio. In 1992 the common equity ratio is estimated to be 45.7%, whereas the maximum ratio dictated by the Company's financial plan is 45.0%. NP defends this deviation in Consent 20, which states:

"This change means the common equity ratio will temporarily be slightly higher than the target ratio of 45%. This ratio will revert back to less than 45% in 1993 and at that time we plan to issue preference shares instead of common shares."

NP's final argument addresses the issue of their financial plan. Page 772 of the transcript contains NP's statement:

"The financial plan put forward by the Company has several objectives. The goal of the Company is to minimize the cost of capital over the long term. In order to do this, it is the Company's view that it must maintain an "A" bond rating. A balancing of financial objectives must be achieved in order to maintain the "A" rating. These objectives, which were stated at page 8 of Mr. Warr's pre-filed evidence are: 1) To achieve an interest coverage on total debt in the range of 3.0 to 3.4 times and coverage of total debt interest and preference dividends in the range of 2.3 to 2.7 times. 2) To finance as much of capital expenditures as reasonably possible through the issuance of debt and common equity with less emphasis on preferred equity financing, to achieve a total debt ratio of 45 to 50%, a preferred ratio of 5 to 10% and a common equity ratio of 40 to 45%. 3) To maintain a reasonable rate of return on the Company's common equity."

Hydro during final argument commented on Hydro's concern that the financial plan had been revised toward the end of the hearing. Part of the revision had been to plan a $10 million common share issue during 1992 in order to strengthen NP's interest coverage ratio from 2.97 times to 3.07 times. (See page 808 of the transcript) Hydro was concerned that this capital infusion starts to approach violating NP's financial targets.

The Consumer Advocate also addressed the financial targets and financial plan during final argument. The position of the Consumer Advocate was that the Company issue more equity and less of debt.

The direct testimony of Mr. Warr indicates the sensitivity of interest coverage and return on common equity with changes in the financial plan and/ or capital expenditures. (See pages 413 and 420 of the transcript) It is shown in the evidence, the importance of maintaining a capital structure to meet the necessary financial objectives and thereby keep NP's "A" bond rating and its ability to

attract capital in the common share market.

Other than suggestions from intervenors, there has not been any evidence presented to the Board to suggest NP's proposed capital structure is not appropriate. Therefore, the Board having considered the evidence presented orders the proposed capital structure be adopted and continue to be the basis of NP's financial plan. The forecasted common equity ratio of 45.7% in 1992 is approved with the exception NP design its 1993 financial plan to bring the common equity ratio back within the approved range of 40 to 45%.

EMBEDDED COST OF CAPITAL

NP's embedded cost of debt was 10.77% in 1990 and is estimated to be 10.06% in 1991 and 9.51% in 1992.

NP plans an issue of 25 year $40,000,000 First Mortgage Bonds in December, 1992 at an estimated rate 10.70%.

The embedded cost of preferred equity was 7.75% in 1990 and is estimated to be 7.61% in 1991 and 7.55% in 1992.

NP plans a $10,000,000 Common Share Issue in July, 1992.

The cost of debt and preferred equity capital is negotiated in the capital market and to a large degree is beyond the control of NP because of:

(i) the absolute need and the time constraints to finance the capital construction program approved by the Board to meet the demand from customers, and

(ii) the conditions in the capital market at the time of issue.

We have taken into consideration all of the foregoing and have determined that 9.51% in 1992 for total debt, and 7.55% in 1992 for preferred shares are fair and reasonable cost rates to use in determining a just and reasonable Rate of Return for NP.

INTEREST COVERAGE

Interest coverage has become of increasing importance to the Board as a measure of fair and reasonable return. It is important as a measure of the company's ability to meet its interest obligations and it is relied on very heavily by bond rating agencies in rating the bonds of NP. The ability to assess a fair and reasonable return from the Fortis common equity results has diminished. This is due to lack of Canadian data and the increased number of Fortis investments to ventures other than NP which affects Fortis' marketability and share performance. Hence interest coverage acts as an additional verification, as a market accepted measure, return is fair and reasonable.

Canadian Credit Review, Autumn 1991, (CBRS), indicates on page 4 that 1990 and 1991 show bond downgradings in Corporate Canada has far exceeded bond upgradings. This is a reflection of economic times and has hurt many non-utility sectors. Page 7 states that Canadian Balance Sheets have not changed materially however exposure to

floating interest rate liabilities and reduced operating profits in Canada has been damaging to interest coverage ratios in the last quarter of 1990. The conclusion given on page 8 states," Bond buyers should now be cautious as the one time commercial paper....are now trying to be bond issuers. These are the bond issues that should have been done during the go-go eighties and not delayed until the go- slow nineties."

This indicates the superior quality of utility bond issues in comparison to many Corporate Canada Bond issues. This seems to be true in reference to the 1990 and 1991 period just past as well as the outlook of the market in the future.

Supporting this commentary of CBRS is the evidence of Dr. Morin on page 520 of the transcript. Dr. Morin states:

"NP's coverage and debt ratios have deteriorated, but relative to other utilities, their risks have remained fairly unchanged."

Providing the fundamentals of the utility companies are maintained, such as improving interest coverage ratios, healthy return on equity and stable debt to equity ratios, utility companies would be perceived in a favourable light. In the expert testimony of Dr. Morin NP compares favourable in risk within the utility industry and in his opinion are average risk. (page 520 of transcript)

The Board has accepted the premise that NP must maintain an "A" rating on their senior debt in order to effectively attract capital and obtain an interest rate as low as possible. An investment grade rating benefits the consumers through lower costs of issuing debt and in lower interest expense. In 1986 the Board reviewed interest coverage and concluded from the evidence at that time the utilities bearing at least a Canadian Bond Rating Services (CBRS) "A" rating on their senior debt had an average coverage on total debt interest of 3.0 times as a minimum. The evidence presented in KSW-3 indicates a small shift in this rule of thumb to an interest coverage close to 3.0 times or higher. (The Gas Utilities are excluded due to their characteristically low interest coverage as compared to the other utilities.)

In Canada two bond rating agencies are very influential in grading Corporate Canada Bonds. They are CBRS and Dominion Bond Rating Service (DBRS). The focus on CBRS criteria both during the hearing and in this analysis is due to CBRS having more rigorous and stringent standards than DBRS. This is largely due to a difference in the interest coverage formula, whereby CBRS does not give any credit to interest income in their formula. The result in the case of NP is that if CBRS is satisfied with interest coverage performance and other related measures, DBRS would also be satisfied. (see page 432 of the transcript)

Mr. Warr's Schedule KSW-3 shows interest coverage data for a selected group of investor owned Canadian utilities for the period 1986-1990 inclusive. The average interest coverage on total debt

for the utilities identified, excluding NP, was 3.29 in 1986 falling to 2.70 in 1990. This schedule provided two other electric utilities, TransAlta Utilities and Maritime Electric. These utilities similarly shows a dramatic decrease in interest coverage ratios from an average of 4.15 in 1986 to an average of 2.9 times in 1990.

Analysis of KSW-3 page 1 of 2 indicates that TransAlta, Maritime Tel. & Tel. Co. Ltd., New Brunswick Telephone Co. Ltd., and Newfoundland Telephone Limited all exhibited interest coverage of less than 3.0 times in 1989 and 1990 and continued to maintain an A rating albeit they were all down graded. Currently NP has had an interest cover of less than 3.0 times in three of the last four years but has not yet been downgraded by CBRS. Newfoundland Telephone Company Limited is a regulated utility also dependant on the economy in Newfoundland as is NP and have also shown an interest coverage of less than 3.0 times for two years while maintaining an overall "A" rating for their bonds. The evidence presented to the Board is no longer conclusive with respect to 3.0 times interest coverage being an absolute minimum to maintain a Bond Rating of "A".

Mr. Warr explained during cross examination on pages 413-414 of the transcript that the formula used by CBRS for interest coverage on total debt has been modified in recent times to disallow the practice of netting interest income against interest expense. Interest income is a significant component of the formula for NP. Consequently the company has discovered that their interest coverage as defined by CBRS has not been kept as closely to 3.0 times as they had believed it to be since they had been tracking interest cover with a formula that netted interest income against interest expense.

Mr. Warr states on page 384 of the transcript,

"....we are just on the marginal line of whether you consider us good quality investment or medium quality investment. As long as we can stay in the "A" rating category we are considered by the market place to be good quality investment and therefore have access to most of the markets. Whereas if you drop that further notch you get down into another quality investment that's called medium quality. And those companies that are in that category have much much more difficulty in raising debt, especially in difficult markets."

It is the testimony of Mr. Warr that the very recent review of the Company's bond rating by CBRS indicates the company is in jeopardy of losing their investment grade rating of " A" by CBRS. This is the result of the company's failure to meet a 3.0 times interest cover. KSW 15 is the September 30, 1991 CBRS credit Analysis of Newfoundland Light and Power Co. Limited. This states the following:

" Opinion

The rating on the Company's First Mortgage and General Mortgage Bonds are considered to be of good quality and are both rated A.....

Overall, NLP's financial position remains satisfactory, however, <u>the declining interest coverage ratio continues to be a concern of CBRS.</u>(emphasis added)

........interest coverage ratio has declined from 3.3 times in 1985 to 2.7 times in 1990 ......"

"In July, 1991, the Company filed an application with the PUC, requesting a 3.3% increase in electricity rates, effective November 1,1991. If the requested rate increase is accepted...... the interest coverage ratio should improve to a more satisfactory level of 3.0 times."

Dr. Morin states on page 521 of the transcript:
"....hopefully, if the Board allows a fair and reasonable rate of return equal to what I recommended, the trend - downward trend- will be arrested and perhaps even be reversed, and will re-instill confidence in the bond rating agency."

KSW-16 page 10 of 12 shows the effect of the application on interest cover in 1991 and 1992. Interest cover as defined by CBRS improves to 2.88 for 1991 and 3.07 times in 1992. Without any increase, Mr. Warr projects a 2.815 in 1991 and 2.540 times in 1992. This latter trend without an increase shows a rapid deterioration of interest coverage, which would obviously not be well received by the bond rating services given the wording of CBRS September 30, 1991 review.

Mr. Warr states on page 392 of the transcript,
"... their (CBRS) concern is that even though there is a marginal improvement shown in the forecast numbers (1991), they (NP) are still below their minimum. So, we in other words, have to start indicating that we can get to the minimum and get above it in order to show strength from their (CBRS) point of view of assessing us."

Dr. Morin states on page 522 of the transcript:
"There seems to be a modest improvement in 1991, but not good enough to excite the bond rating agencies, as evidenced by their (CBRS) own comments on the matter. They're concerned that it's below 3 and they would like to see it back up to 3, at least."

Hydro as well as the Consumer Advocate (page 802 of the transcript) and Ms. Hyde (page 785 of transcript) provided the view that an absolute minimum interest cover of 3.0 times interest coverage as defined by CBRS is not necessarily required immediately. In Hydro's cross examination and final argument it was argued that a reversal of the declining trend in interest coverage is necessary as well as an improvement in the ratio which closely approaches 3.0 times. However, in the view of Hydro this could be done by setting rates to yield a 2.8 times or 2.9 times interest coverage (refer to pages 804-806 of the transcript).

In summary, NP has provided their own testimony and expert witness testimony and a recent CBRS analysis to support their contention that a 3.0 times interest coverage is necessary to maintain an investment grade bond in the market place. Any level below 3.0 times would in their opinion jeopardize their "A" rating. Counter arguments have been put forth by the Consumer Advocate, Ms. Hyde and Hydro that a

minimum level of 3.0 times absolutely would not necessarily be required. In the view of the Consumer Advocate and Hydro they believe that something approaching 3.0 would be assessed as a positive trend in interest coverage and given the current economic climate and falling interest rates, this would allow NP to earn the "A" rating of CBRS.

The Board was not provided with evidence to counter the evidence of NP and its expert witness. The intervenors limited their input to cross examination and final argument. The Board has evaluated their input together with CBRS comments that indicate an improvement is required in interest coverage. CBRS is evaluating companies in light of poor economic circumstances and higher demand for capital from bond markets given the shrinking supply of funds for commercial paper. As a group utilities would fair better than average as part of the Corporate Canada Population. Utilities on average have all shown deterioration in interest coverage rates.

In the opinion of the Board, the existing rates would certainly jeopardize NP's interest coverage ratio and soon thereafter possibly experience a downgrading of their senior debt. It appears to be obvious that 3.0 times interest coverage is the target required to maintain a CBRS "A" rating. A trend significantly approaching 3.0 times would be necessary to show the bond market the company is correcting its deteriorating interest coverage.

The Board is concerned with the sudden change in the measurement of interest coverage. The financial plan had been designed in the past to maintain a 3.0 times interest cover but this plan gave credit to interest income by allowing interest income to be netted against interest expense. DBRS has not been concerned with deviation of interest coverage solely as a result of interest income and there is no evidence to suggest that DBRS is evaluating a possible downgrading due to interest coverage.

The Board believes the new formula of CBRS should be incorporated into future financial plans. However due to its significant impact on the basis of a formula change only, a goal of 2.9 times interest coverage would seem appropriate for the 1992 test year and the new formula target of 3.0 will be considered in future applications. A target of 2.9 times with the new formula translates into a target of greater than 3.20 times based on the old formula.

The Board orders rates be set to earn a 2.87 times interest coverage based on CBRS interest coverage formula. It is the opinion of the Board this interest coverage level is fair and reasonable and will provide a further improvement of the interest coverage trend of NP and a significant improvement from the 2.7 times interest cover in 1990. Furthermore, it is the opinion of the Board that an interest coverage below 3.0 times for 1991 will not be detrimental when seen as part of an overall rate adjustment.

COMMON EQUITY

The allowed rate of return on common equity is linked with the

interest coverage allowed. Therefore before conclusions can be made on the application for a rate increase, the merits of both aspects of return must be considered independently, then together with the impacts of other elements of this order assessed as a whole.

Rate of return on common equity is a key determinant of the ability of NP to raise capital from the issue of common shares. Due to its corporate structure, NP determines the amount of common share capital it should maintain based on its financial plan's debt to equity ratios. When it is time to issue shares, it issues the required amount to Fortis Inc., the parent company. The Parent Company in turn must then issue shares on the stock market. Unfortunately this intermediary step has complicated the assessment on return on equity somewhat. Only the return on NP may be considered by the Regulator, not any affect the Parent's other investments may have on the return and marketability of the Parent's stock.

The applicant has applied for a rate of return on common equity in the range of 13.5% to 14.0%, with rates set at 13.75%. The midpoint of the range was chosen since it is consistent with past practice and gives the Company the motivation to strive for a higher range (up to 14.0%) while giving them an opportunity to remain within the range if they are unable to come in on forecast (i.e. earn 13.5%).

The applicant presented evidence to support their proposed range of return on common equity. This evidence was presented by an expert witness Dr. Roger A. Morin. Dr. Morin has a Ph.D. in Finance and Econometrics from Wharton School of Finance, University of Pennsylvania. Dr. Morin has provided expert witness to 34 regulators in the United States and Canada since 1980.

Dr. R. A. Morin testified on the appropriate range of return on common equity for NP. Testimony involved the results of several empirical tests to determine an appropriate rate of return. The objective of his analysis was to recommend a fair and reasonable return on NP's common equity capital for 1992 in light of current and prospective capital market conditions, fairness to ratepayers, allow the company to attract capital on reasonable terms, and maintain its financial integrity.

Current and prospective capital market conditions are crucial in the view of Dr. Morin, as a rational investor tries to maximize the performance of his portfolio in light of current and prospective conditions of the market as a whole. The capital market has been extremely volatile. After a seven year period of expansion, the Canadian economy is experiencing a severe recession. The Canadian economy had a mere 0.9% growth rate for 1990 with 1991 witnessing rising unemployment and slower spending. Presently there is some evidence to suggest modest impending recovery from the recession. 1991 is expected to show a 1.1% contraction of the economy and 1992 to show a modest 3.3% growth.

The effects of the GST is contributing to the economic stagnation. Inflation as measured by the Consumer Price Index is forecast at

5.9% in 1991 and 3.5% in 1992. (1990 CPI was 4.7%) Interest rates have also been volatile since late 1989 when they were at 9.5% level, rising to 11.0% in May 1990 and falling to a 10.00% level in June 1991 and down further to 9.5% during the course of the hearing. NP's debentures over long term Canada Bonds is of the order of 115-125 basis points.

In terms of recommending a rate that will allow the Company to attract capital on reasonable terms and maintain its financial integrity, Dr. Morin has used nine methods to determine a fair rate in the context of the market. These models were updated during the hearing to reflect the further 50 basis point decline in the long term Canada rates. The basic premise of these methods is that the regulated industry must provide as attractive an investment opportunity to the rational investor as any other regulated or non-regulated entity of the same risk profile.

Methods used to compute the rate of return on common equity required for NP included: Comparable Earnings, Discounted Cash Flow, Risk Premium of Utilities, Capital Asset Pricing Model (CAPM) and the empirical version of Capital Asset Pricing Model (ECAPM). All but the last two methods were used by Dr. Morin in his 1987 testimony. Dr. Morin states on page 6 of his direct evidence these tests are more rigorous risk premium tests.

In estimating a fair return on equity Dr. Morin evaluated comparable earnings and capital attraction using the methods identified earlier. The results of all methods were then evaluated using professional judgement to identify the appropriate range. Dr. Morin states that all relevant evidence should be used and weighed equally, in order to minimize judgemental, measurement and conceptual errors. No one method provides an infallible estimate but together all nine methods can be used to check the others and smooth out the vagaries of each method.

To determine a fair and reasonable rate of return, three parameters are considered, interest rates, risk premium for the market in general and business risk of NP stock.

As discussed the long term Canada rate has been volatile since NP's last rate application and in fact have continued to drop 50 basis points during the course of the hearing process. The interest rates have continued to drop after the close of the hearing. Given the Canadian economy is edging its way out of a recession, the interest rates are expected to remain at the current level or slightly below.

The second and third parameters involve risk. Dr. Morin states NP has average risk relative to other Canadian utilities. In general the company has risk from the competitive heating alternatives which is expected to intensify in the future, supply risk has increased due to price of power from Newfoundland and Labrador Hydro (Hydro), the economic risk in Newfoundland has increased with this recession and the limited impact of Hibernia in the future. Dr. Morin also concludes that NP's regulatory risk is slightly below average and

its financial risk has remained unchanged.

During Hydro's cross examination of Dr. Morin, Hydro explored some of the assumptions underlying NP's business risk. With respect to alternative heating sources, oil was identified as the primary competitor. CBRS Credit Analysis, Newfoundland Light & Power Co. Limited, September 30, 1991 (KSW-15) contains a section entitled "Strengths/ Concerns." CBRS states:

"Furthermore, the Company continues to increase its share of the residential space heating market, capturing over 70% of new homes. Currently, almost 52% of all residential homes in Newfoundland are electrically heated."

Dr. Morin contends these facts do not eliminate the existence of risk from alternative heating supplies for the residential customer. As the price of oil continues to fall, the competitive risk may become more appreciated.

With respect to operating-business risk, Hydro inquired whether the Company's average risk included the fact NP is primarily a distributor of power not the generator. Dr. Morin confirmed he had taken this into account and that average risk was assessed in light of the volatility of the economy in Newfoundland, the demand for power in light of volatile local industry such as mining, forestry and fishing.

Hydro during final argument continued to stress there is less risk associated with being a distributor. Also the clientele of NP is primarily residential in nature, approximately 85% of customers and 55% of revenue according to CBRS (Exhibit KSW-15). The large riskier industrial customers are served by Hydro, however the remaining 45% of revenue from non-residential customers must come from some where. (See page 803 of transcript) Hydro also felt that risk is reduced with a high basic customer charge providing 10% of NP's revenue.

Hydro was not able to suggest what affect this would have on Dr. Morin's empirical data. The studies relied on empirical evidence and it is difficult to say what affect these general disputes would make, if any.

Dr. Morin performed extensive empirical tests on NP's parent company and companies deemed to have similar risk profiles. The results of his tests are set out in the following paragraphs.

COMPARABLE EARNINGS

The evidence has provided a group of common stocks of companies with comparable risk. This reference group was comprised of 40 publicly traded industrial and utility companies. The group of 27 industrial companies that were used had a mean return of 12.96% over the last 10 years. Dr. Morin evaluated this result as having an upward bias as the less profitable 1990-1991 was not used. The evidence

concludes that if regulation is attempting to duplicate competitive results, NP's rate of return on common equity should be in the same order of magnitude.

During the Consumer Advocates cross examination of Dr. Morin, discussion of inflation arose. Dr. Morin confirmed rates during the ten year period used in the study averaged 6.5%. 1992 forecasted inflation was 3.5%. (See page 469 of transcript) The higher 10 year average results from high inflation rates in 1980-1982. The Consumer Advocate argues the 3.0% difference between the historical rate and the forecast casts doubt on the results of the comparable earnings study. The Consumer Advocate translated this disagreement into a 50 basis point reduction in Dr. Morin's recommended rate. (See final argument page 798 of transcript.)

The Board has some difficulty in the rational of accepting part of a ten year comparable study but not the portion of the study relating to 10 year average inflation. There is no direct evidence providing an alternative study or a revised comparable earnings study based on real return. The Board has accepted the methodology used in comparable earnings study in the past and will accept the information provided by this study presented during this hearing.

DISCOUNTED CASH FLOWS

Dr. Morin conducted several tests of Discounted Cash Flows (DCF) on reference groups. A fundamental assumption in this analysis is that dividend growth provides a representative measure of the growth of return. There is no definite conclusion on the validity of this assumption in academic circles. However, given the greater consistency of dividend practices for blue chip stocks, the assumption of the dividend growth representing overall growth of return is accepted.

The results of these tests on Fortis, comparable low risk industrials, Canadian energy utilities and Canadian telephone utilities are shown in the following table.

Discounted Cash Flow Rates

Fortis Corporation	13.75%
Canadian Low risk Industrials	13.50%
Canadian Energy Utilities	13.61%
Canadian Telecos	12.50%
Average Discounted Cash Flow Rate	**13.34%**

This table indicates that Fortis Corporation has been ahead of its comparable reference group on average for the ten year period. Also given the fact that NP outperforms Fortis Corporation, the Board is left to conclude NP has performed better than its comparable reference groups for the historical period.

The Consumer Advocate cross-examined Dr. Morin regarding the discount period chosen, namely the quarterly discount. This method was chosen since the dividend pay out in the cash flow analysis is quarterly. On Page 490 of the transcript the Telecom Decision CRTC 90-15 - Newfoundland Telephone Company Limited was reviewed. The CRTC did not accept the quarterly discount period, resulting in 30 to 40 basis points not being allowed. The CRTC was concerned that a DCF return based on quarterly periods is applied to an average annual rate base. Yet the CRTC accepts a model with semi annual payments on bond issues.

The Board is cognizant of the fact most Boards in Canada only recognize annual DCF models. The Board agrees with the CRTC that quarterly discount model had theoretical merit. The Board is of the opinion the quarterly DCF model better reflects the cash flow reality. Use of the quarterly discount model gives rise to an additional 30 - 40 basis points for DCF models. The Board concludes that use of the quarterly discounting model in this rate application be allowed.

A second issue explored by the Consumer Advocate during cross-examination was flotation costs. Dr. Morin's use of 7% flotation cost is as a blended, weighted average flotation cost of all past and future stock issues. (See Page 513 of transcript) The tax effect is extremely complicated and was also reviewed by Dr. Morin on page 514 of the transcript. The after tax effect for flotation cost would be 5%. Rate of Return on Common Equity is an after tax figure, therefore adjustments for flotation costs should also be after tax. The CRTC 90-15 Decision also corrected Dr. Morin's flotation rate from 7% to 5% for tax effect.

Another disputed component of flotation cost was a 2% element related to market pressure. Dr. Morin states on Page 515 of the transcript that there is no Canadian empirical support available for market pressure. Due to the difference between the U.S. and Canadian capital markets the Board is not able to assume the U.S. data fits the circumstances related to NP floating common shares in Canada.

Therefore the Board concludes flotation costs allowance must be adjusted downward by 2% for tax affect and 2% for lack of evidence relating to market pressure. The allowed flotation cost allowance is set at 3%. The effect of this adjustment would reduce Dr. Morin's average by 20 basis points.

RISK PREMIUM OF UTILITIES

This method was used to estimate the appropriate return on common equity using the formula:current yield on debt plus the historical spread between return on debt and return on equity. One benefit of this methodology is the ability to utilize current debt yield as a basis of determining return. This allows the impact of the current economic environment to be reflected in the rate.

As with the DCF methodology, Dr. Morin used the risk premium method on three groups, Canadian utilities, U.S. utilities and the capital market as a whole. The results for the capital market use the CAPM and are discussed later.

The Canadian Utilities Group is represented by Canadian telephone utilities with similar risk profiles. The test looked at the period 1980- 1989 but concluded that a bias of results could occur if the period of 1980-1983 was included. Therefore a time series analysis of the period for 1984-1989 was used with a resulting 3.12% risk premium being determined. This risk premium is then added to the current cost of debt for NP of 10.75%, thereby estimating the return on common equity to be 13.87%

The U.S. Utility Group was based on Moody's Electric Utilities index, a composite of the industry that has by its sample size eliminated the effects of individual company performance and produced an average. As with the Canadian utilities, the period studied is from 1984 to 1989. The study determined the risk premium to be 3.17%. This risk premium when added to NP's cost of debt of 10.75% provides a return on common equity estimate of 13.92%. The method uses DCF methodology to determine the cost of equity of the composite each year to compare with the composite cost of debt for each year. Therefore any difficulties with the use of DCF methodology applies to this method as well.

The Consumer Advocate cross-examined Dr. Morin on the risk premium methods used. One issue related to the use of U.S. data. In support of the Consumer Advocate's contention that U.S. data not be allowed, the Manitoba Public Utilities Board Order No: 133/90 was entered as Consent 13. The Manitoba Board found it was not convinced that the U.S. data was relevant and therefore did not consider this evidence.

The Board has reviewed this area and cannot ignore the absence of certain Canadian information on electric utilities. It does not seem much better to constantly rely on the use of Canadian Teleco data as representative information on NP, another Canadian utility but not a TeleCo. While it is obvious there are differences between the U.S. market and the Canadian market, the U.S. does have an influential impact on our industries. Given the fact that the U.S. data is averaged against eight other studies, it does not seem inappropriate to the Board to utilize the information it provides, especially since it is the only large source of similar electric utilities. The Board accepts the results of the U.S. Electric Utilities study.

<u>CAPM (CAPITAL ASSET PRICING MODEL)</u>

CAPM methodology is widely used to predict the return on common equity of stocks and portfolios of stock. It is more complex than previous models and is based on the risk return relationship established by the capital market.

To use this method three basic elements were derived. The first is the risk free rate believed to best be measured by long term Canada Bonds. This was 10.00% as at June 1991 and 9.5% during late September 1991. The pre-filed evidence was revised to reflect the 9.50% rate. The second element is NP's beta measurement or in simple terms the amount NP or its parent Fortis' stock varies with the change in the stock market as whole. This amount was provided by FRI CANFAX, STDATA as 0.54. The third element is the market risk premium which is widely used in finance. For this case analysis Dr. Morin's measurement was determined with reference to three sources. First, a 1926- 1989 market study in the U.S. by Ibbottson and Sinquefield; second, similar Canadian studies covering similar periods up to 1987 (Hatch and White as well as Boyle, Panjer and Sharp); and third, analysis of Value Line predictions on aggregate dividend yield and projected growth of Value Line common stocks. Two of the three sources are historical but it is believed the average realized return is an appropriate surrogate for investors expected return. The basic conclusion drawn from the three studies was that market risk premium was 6.0%-7.5%, i.e. the market as a whole will out perform risk free investments such as long term Canada Bonds by 6.0-7.5%. This means the return on market is 15.5% to 17.0%.

Using the CAPM formula a range of returns would be as follows:

Market return of 15.50%
NP return = 9.50% + 0.54 x (15.50%-9.50%)
= 12.74%

Market return of 17.0%
NP return = 9.50% +0.54 x (17.0%-9.50%)
= 13.55%

Dr. Morin takes the midpoint of this range, 13.14% to which is added the flotation cost of a share, estimated as 30 basis points. This provides a return on common equity estimate of 13.44%.

The issue raised on flotation cost in the previous section have already been evaluated. The effect of adjusting flotation costs for risk premium studies have also been evaluated earlier.

The Consumer Advocate was concerned with the use of Ibbottson Sinquefield data as a measure of market risk premium. The Board does not accept the argument that because it is U.S. based it does not apply. This is a land mark study, that took considerable time and money to produce. To suggest Canadian Public Utilities Boards must wait until Canada can fund a similar study with more up to date figures is irresponsible. The study is valid and evaluated along side Canadian studies. The Board accepts this evidence.

On page 799 of the transcript the Consumer Advocate suggests a 50 basis point reduction in the recommended rate of return due to problems with comparability estimates. The Board has considered the Consumer Advocate's argument on this matter, however, no direct evidence has been provided to support the argument. The Board has

reviewed the RAM exhibits and evaluated the explanations given on the screening tests used to arrive at a comparable sample.

The Board accepts the study for CAPM.

ECAPM (Empirical Version of Capital Asset Pricing Model)

ECAPM is a modification of the CAPM model. It adjusts the estimated return for companies with betas less than one.

The Board recognizes the theory on which this model is based. However it is difficult to accept on the one hand that the rate must be adjusted upward because a regulated company is not as sensitive or risky to changes in the market.

The Board is not willing to accept the ECAPM at this time.

CONCLUSION

Requirement of a fair return on invested capital has been upheld in the courts since the landmark Federal Power Commission vs. Hope Natural Gas Company, 1944. Section 3 of the Electrical Power Control Act states, inter alia, that:

" It is declared to be the policy of the province that the rates be charged, either generally or under specific contract, for the supply of power within the province (a) should be reasonable and not unjustly discriminatory;.......(c) should provide sufficient revenue to the supplier of the power to enable it in the case of a private company, to earn a just and reasonable return as construed under the Public Utilities Act, 1989......so that it is able to achieve and maintain a sound credit rating in the financial markets of the world."

When considering this application for a rate increase, the Board must examine the forecast earnings, interest coverage and return on common equity to assess the Company's ability to attract capital with reasonable terms and to maintain its financial integrity. While this is not the complete and only considerations of the Board, it is a fundamental portion of the review.

In 1989 the Board approved NP's rate of return range as 13.7 to 14.2% with a midpoint of 13.95% used for rate setting purposes. Since that time there has been a substantial change in the underlying interest rates. Long term Canada Bonds were set at 9.5% during the first week of the hearing and continue to drop. As a result of the dramatic drop in interest rates from the time the applicant began to prepare for the application, the applicant revised its financial model, rate of return on common equity, and required revenue requirement during the hearing. This modification resulted in eight of the nine studies being adjusted with the rate of return on common equity figures reduced.

The Board has revised the updated Cost of Equity Schedule of Dr. Morin. Based on the preceding analysis, return on equity

estimates were adjusted as follows:

DCF methods - the overall average was reduced 20 basis points to reflect the flotation cost allowance accepted by the Board.

Comparable Earnings was not adjusted.

Risk premium methods were all adjusted by 20 basis points for flotation cost allowance.

ECAPM was disallowed in the average.

COST OF EQUITY

DCF Methods (4 methods)		13.14%
Comparable Earnings	12.96%	
Risk Premium Methods		
Canadian Utilities		13.67%
U.S. Electric		13.72%
CAPM	13.25%	
ECAPM	not allowed	
Average Risk Premium	13.55%	
Average Rate of Return on Eight models		13.27%

The Board orders a range of 13.00% to 13.50% be adopted as the Company's rate of return on common equity with rates being set at the mid-point of the range, 13.25%. In the opinion of the Board this will give NP the opportunity to earn a fair and reasonable return and will increase NP's interest coverage in 1992 to 2.87 times.

The Board believes that NP's interest coverage in 1991 of 2.81 times at existing rates, which is an increase from 2.7 times in 1990, together with the increase to 2.87 in 1992 is satisfactory.

RATE OF RETURN ON AVERAGE RATE BASE

When the foregoing findings on capital structure and the cost of different components of invested capital are combined the composite cost of NP's average total invested capital in the test year based on information submitted by NP and calculations made by Noseworthy, is found to be:

Composite Cost of Average Total Capital

	Average Capital $000	Component As % of Average Capital %	Cost of Component %	Weighted Cost 1992
Total Debt	$224,491	48.189.51	4.58	
Preferred Equity	29,814	6.40	7.55	.48
Common Equity	211,652	45.42	13.0/13.5	5.90/6.13
	$465,957	100.00	10.96/11.19	

The average total invested capital for 1992 is forecasted to be $465,957,000 and the estimated average rate base for the same period

is $460,580,000. The difference is $5,377,000 or approximately 1.17%.

The Board will use the average cost of capital as the approved rate of return on rate base.

After considering all the foregoing factors we find that a just and reasonable return for NLP in the calendar year 1992 lies between 10.96% and 11.19% on its actual average rate base.

REVENUE REQUIREMENTS

As a result of the foregoing findings we find that the estimated revenue requirement from basic rates of NP for 1992 is $337,913,000 in order to have the opportunity to earn a 13.25% return on its common equity. This revenue requirement will increase rates on average by 2.25%.

JOINT PLANNING REPORT

In a letter dated July 25, 1991, the Public Utilities Board instructed NP to submit, prior to its next hearing, a report containing "(1) the Utility's appraisal of the effectiveness of present joint planning procedures [with Newfoundland and Labrador Hydro] and (2) suggestions or recommendations for improving the effectiveness of joint planning".

The report was submitted during the hearing but was not addressed.

The Board expects NP and Hydro to meet and discuss the report and submit to the Board prior to the next Hydro hearing their comments and suggestions.

Rates

The following is a summary of Mr. Hamilton's evidence.

NP intends to design rates to recover 95 percent of cost from the domestic class, 100 percent of cost from the street lighting class, and the balance from the general service classes, which will be approximately 110 percent of cost.

NP is proposing to:

(1) vary increases to the rate schedules in order to move closer to targeted revenue/cost ratios outlined above;
(2) more adequately recover customer-related and demand-related costs from low load-factor customers;
(3) make rate changes that will permit the orderly incorporation of anticipated purchased power rate structure changes from Newfoundland and Labrador Hydro;
(4) eliminate Rate #3.0, All-Electric General Service (0-10 kVA);

(5) limit the increase to any customer, on an annual basis, to ten

percent plus the overall percentage increase on that customer's rate class unless special circumstances prevail or the dollar amount of the increase is small;

(6) make further progress in the elimination of the churches and schools discount under Rate #2.2 as ordered in P.U. 1 (1990).

As in the past, the results of the most recent cost allocation study have been used as the base guideline to determine the appropriate increase for each customer class. This does not include Street and Area Lighting for which more detailed cost data were available. The following table indicates the revenue to cost ratios from the 1990 Cost Allocation Study based on the July 1, 1990 rate being in effect for the full year as well as revenue for the full year 1992 at existing and proposed rates along with the percentage increase by rate class.

Revenue at Existing and Proposed Base Rates by Rate Category - 1992
(Excluding Rate Stabilization and Municipal Tax Adjustments)

Category	Revenue as a % of Cost	Revenue ($000's) Existing Rates	Revenue ($000's) Proposed Rates	Increased Revenue 000's	%
1.1 Domestic	92.1	187,304	194,893	7,589	4.05
2.1 G.S. 0-10 kW	107.3	8,076	8,367	291	3.60
2.2 G.S. 10-100 kW	110.4	49,187	50,828	1,641	3.34
2.3 G.S. 110-1000 kVA	116.0	51,820	52,747	927	1.79
2.4 G.S. over 1000 kVA	121.8	20,962	20,731	(231)	(1.10)
3.0 A.E. G.S. 0-10 kVA	103.4	1,323	1,449	126	9.52
4.1 Street and Area Lighting	100.7	10,050	10,646	596	5.93

The additional revenue from proposed rates in 1992 is $10,437,000, an overall 3.15% increase.

The following is a summary of the more significant proposed rate changes.

All-Electric General Service Rate #3.0

NP is proposing to move the customers in Rate #3.0 to Rate #2.1 as the customers on these two rates are basically the same, and to eliminate Rate #3.0, All-Electric General Service.

Churches and Schools Discount on Rate #2.2

The churches and schools discount, which applies only to the General Service Rate #2.2, has been reduced from $1.00 per kW under

the existing rate to $0.50 per kW under the proposed rate as directed in P.U. 1(1990). This discount will be eliminated at our next hearing.

Rates with Demand and Energy Components

NP proposes to decrease the unit price of the end block of energy on each rate that has demand and energy components. This change is proposed because the associated revenue will be more appropriately recovered from the demand charge component of that rate. This change is consistent with the rate design objectives regarding Cost Based Rates and Market Efficiency and the need for more accurate demand and energy block pricing for DSM program determination.

NP has also increased the differential between the winter and summer demand charges from $0.50/kVA to $0.75/kVA to more accurately reflect the difference between peak versus off-peak costs.

Street and Area Lighting

Street and Area Lighting rates have been updated using the latest available cost figures based on our established methodology.

The installed costs for fixtures, poles and underground wiring are based on embedded costs up to December 31, 1990. Fixed charges are based on the estimated cost of capital for 1992. Maintenance costs reflect average labour and material costs for the past two years. The cost of electricity used by the fixtures was based on the unit cost per kilowatt-hour from the 1990 Cost Allocation Study. This unit cost was adjusted by the average overall increase in rates currently being proposed to arrive at the unit cost of electricity of 10.399 cents per kilowatt-hour.

The proposed monthly rates for 100 watt HPS fixtures are the same as those proposed for 175 watt MV fixtures. These rates are based on the weighted average unit cost of these fixtures.

Rules and Regulations

NP is proposing that the Rate Stabilization Clause and six regulations be modified. In addition, NP is proposing that two new regulations be added.

Regulation 5(b) has been reworded to make it easier to read and understand.

Regulation 5(k) has been modified to replace the reference to the Newfoundland and Labrador Electrical Code with the Canadian Electrical Code.

Regulation 9(b) has been reworded to make it easier to read and understand.

Regulation 9(h) has been reworded to make it easier to read and understand.

Regulation 9(o) has been added to charge customers for the preparation of account statements which exceed twelve months. Obtaining this information is very labour intensive and a fee will reduce the number of requests and ensure the cost is recovered from the customers who request this information.

Regulation 10(a) has been modified to allow customers to receive two bills in the same month. The Customer Service System was developed with the functionality to allow off-cycle billing which allows for immediate billing of final bills and rebilling of incorrect bills.

Regulation 11(d) has been modified to ensure that agreements signed by landlords as described in 11(f) will act as the contract for the periods during which the premises is vacant.

Regulation 11(f) has been added to enable landlords to sign agreements assuming the responsibility for energy consumed on their premises whenever it is vacant, thereby eliminating the need for and expense of disconnecting the service.

Section 11.4 of the Rate Stabilization Clause has been deleted. This section was approved in Order No. P.U. 7(1990) to ensure that the Company received the exact amount of revenue required to offset the increased purchased power expense from Hydro July 1, 1990 rate change in that fiscal year.

The present basic charge for Domestic Service is $14.50 per month. NP is proposing to increase it to $16.32 per month. The total cost based on 1990 costs would be $19.57. In 1990 the basic charge was increased to $13.05 per month from $10.35 per month.

Mr. Brace argued that the basic customer charge be retained at its present level or alternatively be phased in over a 5-year period.

The increase in the basic charge for Domestic Service is being phased in.

If the charge does not recover its costs it means that these costs are included in the energy charge or kwh charge. This creates a subsidy within the class, where small volume users (e.g. summer homes) are subsidized by larger volume users as the under recovery causes the energy charge to be priced higher than the costs incurred in providing the service.

The Board finds that NP's proposed increase in the basic charge should be approved.

Mr. Carew of the Newfoundland and Labrador Pensioners and Senior Citizens Federation requested that the domestic service rate be used for their club rooms rather than the general service rates.

The Federation made the same request at rate hearings in 1989 and 1987.

These clubs do not meet the definition of the domestic rate class in NP's rate structure.

NP's Rules and Regulations define a "Domestic Unit" as follows:

"Domestic Unit means a house, apartment or other similar residential unit which is normally occupied by one family or by a family and no more than four other persons who are not members of that family or which is normally occupied by no more than six unrelated persons".

Ms. Myles pointed out that the clubs do not meet the definition of the domestic accounts. She argued that if the clubs were put into the domestic class it would not be fair to other customers with the same limited income problems and that NP's rate structure is not the appropriate forum in which to incorporate social policy.

The Board will not order NP to make any change in its definition of "Domestic Unit".

COSTS

NP will be ordered to pay the expenses of the Board arising out of the hearing.

IT IS THEREFORE ORDERED THAT:

1. The calendar year 1992 be used as the Test Year for the purpose of this application.

2. NP's average rate base for the year ended December 31, 1989 be and it is hereby fixed at $364,597,000 and for the year ended December 31, 1990 at $402,118,000.

3. NP's estimated average rate base for the year ending December 31, 1991 be and it is hereby fixed at $436,438,000 and for the year ending December 31, 1992 at $460,603,000.

4. A just and reasonable return for NP is determined to be between 10.96% and 11.19% on its average rate base for 1992, which will provide an opportunity to earn a rate of return on common equity between the range of 13.00% to 13.50%.

5. Foreign exchange losses amounting to $1,000,000 or more are to be amortized over a five year period.

6. The deferral period for 1991 and 1992 DSM costs will be five years with the exception of any labour costs associated with annual

recurring DSM activities which will be expensed in the year these activities are conducted.

7. The $1,000,000 reduction in the annual allocation to General Expenses capitalized proposed by NP is not allowed.

8. The depreciation rates set forth in the Depreciation Study and as used in the calculation of depreciation in the revised evidence is approved.

9. NP will submit its next depreciation study in 1996.

10. NP will prepare a NPV analysis of the Customer Service System (CSS) using an incremental cost/benefit approach and submit it to the Board before the next rate hearing in NP's own behalf, at which hearing the Board will make a final decision on the cost to be permitted in the rate base.

11. In future, any expenditure of a material amount should be evaluated by NP using a NPV methodology and this analysis together with its supporting justification shall be available to the Board upon request. Where a project is not evaluated along side other acceptable alternatives and/or if the project does not produce a positive NPV, sufficient appropriate evidence must be provided to justify implementation. In such instance the Board must be appraised of the matter in advance.

12. NP shall put in place a quarterly reporting mechanism whereby NP aggregates all inter-corporate transactions by the accepted code of accounts, segregating purchases of goods and services from sales of goods and services. This report will be submitted to the Board together with any contracts and agreements signed during the quarter with any related parties. Transactions exceeding $50,000 individually or per annum must be reported separately and compared to the cost of the same transaction from an arms length supplier(s). A description of the nature and the amount of the transaction(s) as well as any amount due to or from the related party must be provided.

13. NP conduct a study into the financial policies of regulated Canadian utilities with respect to mark up percentages on related party transactions. NP will continue applying their current policy of cost recovery as it relates to inter-corporate charges other than the sale of electricity. Sale of electricity would be acording to approved rates only.

14. The Municipal Tax Surcharge (MTS) is no longer in effect until such time as the Order of Cameron J. is dealt with.

15. NP shall file, for examination by the Board, a Schedule of Rates, Tolls and Charges, to be applied to consumption on and after January 1, 1992 and which will comply with the Board's findings in the reasons for decision.

16. NP shall file a copy of Rules & Regulations which will comply with the Board's findings in the reasons for decision and which will become effective immediately.

17. NP shall pay the expenses of the Board arising out of this application.

DATED at St. John's, Newfoundland, this 4th day of December, 1991.