P.U. 1 (1990)

Order #1
January 30, 1990

No. P.U. 1 (1990)

IN THE MATTER OF THE PUBLIC UTILITIES ACT, CHAPTER 322, R.S.N. 1970, AS AMENDED

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 based on the existing range for rate of return on common equity;

(iii) approving a revised schedule of rates, tolls and charges, and

(iv) approving revisions to the rules and regulations.

The following is a summary of evidence and the findings of the Majority of the Board.

THE APPLICATION

On September 25, 1989, Newfoundland Light & Power Co. Limited (NLP) filed an application which was amended November 17, 1989, for an Order of the Board:

(a) fixing and determining the average rate base of NLP for the year ended December 31, 1987, at $315,679,000 and for year ended December 31, 1988, at $337,802,000;

(b) fixing and determining estimated average rate base for NLP for the year ending December 31, 1989, at $365,303,000 and for the year ending December 31, 1990 at $401,368,000;

(c) determining a just and reasonable return based on the existing range of rate of return on average common equity of 13.7% to 14.2%;

(d) approving a revised Schedule of Rates, Tolls and Charges to be effective for service provided on and after February 1, 1990;

(e) approving the revisions to NLP's Rules and Regulations to be effective February 1, 1990;

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

At the same time as NLP 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 NLP'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 October 19, 1989.

The Phase I Hearing was called by the Board to bring together NLP and the Intervenors of record at the time to give each of them an opportunity to indicated 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 NLP, John J. Harris, LL.B. appeared for the Consumers Association of Canada, Newfoundland Branch (CAC) and Thomas R. Kendell, 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 November 20, 1989, and subsequent to the Phase I Hearing advertisements were placed in the newspapers circulated in NLP'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 November 20, 21, 22, 23, 24, 27, 28, December 12, 18 and 20.

Joan Myles, LL.B. and H. Stanley Marshall, LL.B. appeared as counsel for NLP.

John J. Harris, LL.B.l appeared as counsel for CAC.

William H. Goodridge, LL.B., appeared as counsel for the Newfoundland and Labrador School Trustees Association.

During the Hearing the Board was assisted by its counsel, Thomas R. Kendell, LL.B. and Dennis G. Browne, LL.B. and Raymond G. Noseworthy of Noseworthy Keating, Howard & Kung, the Board's accounting consultants.

Evidence was given for NLP by the following officers and management of NLP:

A.A. Bruneau, President & Chief Executive Officer,
A.F. Ryan, Executive Vice-President - Operations,
K.S. Warr, Vice-President, Finance &^ Treasury,
M.J. Erbland, Vice-President, Corporate Planning & Consumer Relations,
P.R. Hamilton, Manager, Rates & Forecast.

CAC called as a witness:

P.D. Carter, Independent Economic Consultant.

The Board called as a witness:

R.G. Noseworthy (Noseworthy)

The Board received letters from Ms. Katherine Penney, Corner Brook, M.G. Hillier, Stephenville, L. Drodge, Dunville, Ms. Anne Hughes, St. John's. Fred R. Coates, Mayor, Town of Conception Bay South, P.J. Greenacre, Corner Brook and E. Fisher, President, Newfoundland and Labrador Pensioners and Senior Citizens Federation, Pasadena, and William J. Power, Business Manager, Roman Catholic Episcopal Corporation, St. John's, all opposing the proposed increase in electrical rates.

BASIS OF THE APPLICATION

By Order No. P.U. 17 (1987) the Board ordered that the average rate base of NLP for the year ending December 31, 1986, be $296,693,000 and that its estimated average rate base for the years 1987 and 1988 be fixed at $316,645,000 and $341,131,000 respectively.

Since the issuance of Order No. P.U. 17 (1987) NLP has added certain properties and retired others and changes in accumulated depreciation, contributions 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 NLP proposes that the average rate base for the years ended December 31, 1987, and December 31, 1988, be fixed and determined at $315,679,000 and $337,802,000 respectively and that estimated average rate base for the year ending December 31, 1989. be $365,303,000 and for the year ending December 31, 1990, by $401,368,000.

By Order No. P.U. 17 (1987) the Board determined a just and reasonable return for NLP based on a range of rate of return on average common equity of 13.7% to 14.2%. Since the issuance of Order No. P.U. 17 (1987) there has been no change in the rate of return on common equity required by NLP.

In order to earn the just and reasonable return to which it is entitled under Section 77 of the Act, NLP will require additional revenue in 1990. NLP has computed its additional revenue requirement for 1990 at $9,392,000 based on a rate of return on average common equity of 13.95%.

By Order No. P.U. 17 (1987) the Board approved a Schedule of Rates, Tolls and Charges for service provided by NLP. By Order No. P.U. 16 (1989) the Board gave interim approval to NLP to reduce by the amount of 0.040 cents per Kilowatt hour, the energy charges to which NLP's Rate Stabilization Clause applies to reflect the 0.042 cents per Kilowatt hour reduction in energy rates charges to NLP by Newfoundland and Labrador Hydro (Hydro), effective July 1, 1989.

To obtain its revenue requirement and finalize the pass through of changes in Hydro's rates to NLP, NLP proposes to implement the revised Schedule of Rates, Tolls and Charges which would result in an overall average increase of 3.91% in the rates. The revised Schedule would be effective for service provided on and after February 1, 1990.

By Order No. P.U. 17 (1987) the Board approved changes in the Rules and Regulations which included the introduction of the Municipal tax Clause. This clause which provides for recovery of municipal tax as a separate component of NLP's rates was the initial step in addressing the inequity caused by the variance of the rates of municipal taxation.

NLP now proposes to implement on July 1, 1990, a Municipal Tax Surcharge to apply to customers in municipalities imposing municipal taxes in excess of 2.5%. The Municipal tax Surcharge and the resulting changes to the Municipal Tax Factor are included in the revisions of the Schedule of Rates, Tolls and Charges.

By Order No. P.U. 17 (1987) the Board approved rules and regulations which relate to the service provided by NLP. NLP now proposes to implement on February 1, 1990, the changes to the Rules and Regulations.

TEST YEAR

NLP has used the calendar year 1990 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 NLP's forecasts for the proposed test year.

We accept as the test year, the calendar year 1990 for the purposes of this application.

CAPITAL EXPENDITURE BUDGET

The total number of customers supplied at the end of 1988 was 184,055. This represents a growth of 2.5% over 1987. The growth in 1989 and 1990 is estimated to be 2.5% in each year.

The annual average normalized use of electricity for domestic customers excluding electric heating was 8285 KWh in 1988. This use has increased each year and is expected to increase in 1989 to 8529 kwh and the 8659 kwh in 1990. 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 kwh in 1986. In 1988 it increased to 19,676 kwh and is estimated to increase to 20,009 kwh in 1989 and 20,245 in 1990.

73.5% of new domestic customers have electric heat. This percentage is expected to decline to 73.0% in 1989 and 72.8% in 1990.

The bulk of NLP's energy requirements are supplied by Hydro which supplied 90.0% in 1988 and is estimated to supply 92.0% in 1989 and 91.0% in 1990.

Capital Expenditures Since 1984

	1984	$30,615,000
	1985	$32,990,000
	1986	$32,184,000
	1987	$38,881,000
	1988	$46,598,000
Forecast	1989	$56,518,000
Forecast	1990	$67,208,000

In its financial model for financing and rate making purposes NLP have reduced its capital expenditure forecast by 2% in 1989 and 8% in 1990 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. Ryan stated that there are a number of reasons capital expenditures have increased from $38,881,000 in 1987 to $46,598,000 in 1988, to an estimated $56,518,000 in 1989 and to an estimated $67,208,000 in 1990. In an effort to keep customers costs to a minimum projects have been deferred since 1982, the load has now grown to the level where a number of these must proceed resulting in major expenditures. Additional substation transformer capacity is an example of this. To improve efficiency and better service customers, NLP has found it necessary to extend or replace some of the Regional buildings.

Customer dependence on electricity is becoming increasingly more complex. This is true in the commercial areas with their increased use of computers as well as in the home with microprocessor-based appliances such as VCR's. This equipment has resulted in customers becoming more demanding regarding the quality and reliability of their power supply. Some projects are included to increase system reliability.

The long-term development of the system could only be delayed so long, and by 1988 NLP had to proceed with many of the programs previously deferred. Capital expenditures increased significantly in 1988 and are forecast to increase further in 1989 and 1990, partially as a result of higher rates of growth and partially in response to the demand of customers for better service.

We accept the reduction of NLP's forecast capital expenditures in 1989 and 1990 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 NLP for 1990 and its external financial plans

assuming proposed rates are shown below:

Capital Expenditure	$ 62,620,000
Preferred Dividends	2,436,000
Common Dividends	14,282,000
Decrease in Bank Loans	19,444,000
Reduction in Long Term Dept	12,480.000
Purchase of Preferred Shares	1,430,000
	$112,682,000
Less: Funds Generated Internally	55,240,000
	$ 57,442,000

External Financing Plans

Common Share Issue	$ 14,850,000
First Mortgage Bond Issue	39,450,000
Other Items*	3,142,000
	$ 57,442,000

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

Mr. Harris argued that capital expenditures are excessively high due to the increase in the use of electricity. He believes NLP has certain flexibility in the are of capital expenditures which would enable it to reduce these expenditures.

Mr. Ryan testified that NLP would not be looking after the interests of its customers if capital expenditures are cut any further than NLP has already cut them.

On the basis of the evidence filed by NLP, the testimony of A.F. Ryan under cross-examination and the report of Noseworthy, we accept NLP's forecast of capital expenditure for 1990 and find that this expenditure is required to enable it to meet its service obligations.

ACCOUNTING MATTERS

Extraordinary repairs, which require replacement of units of property or a significant portion of a unit of property whereby useful life of the property is extended, are clearing capital expenditures. However, substantial expenditures due to storm damage are not capital expenditures and would normally be charges to expenses. NLP propose that expenses of this nature (due to storm damage) which exceed $500,000 should be amortized over a reasonable period as determined by the Board on a case by case basis.

Currently Interest on Overdue Accounts is classified as Miscellaneous Revenue. Such interest is truly Interest Income because it is directly related to Interest Expense which is incurred to finance the outstanding accounts receivable. During the past few years and more specifically in 1989 and 1990 this item has increased significantly to approximately one million dollars. NLP believe that

Interest on Overdue Accounts should be reclassified as Interest Income and this has been done in the actual and forecast financial statements in the evidence. This change will also improve interest coverage since the denominator in the interest coverage formula will be reduced. This treatment if followed by Newfoundland Telephone and is also acceptable to the two bond rating agencies. NLP ask that the Board accept this change starting in 1989.

NLP proposes that foreign exchange losses should be deferred and amortized over a reasonable period. if the realized loss is small, it should be amortized over a period less than five years. Specifically, NLP anticipates a foreign exchange loss of approximately $360,000 in 1990. NLP have assumed a two year amortization for this loss. In addition NLP believe that amortization should begin in the month of the loss realization.

Noseworthy agrees with these changes.
We approve the above changes in accounting.

ADMINISTRATIVE AND GENERAL EXPENSES

Mr. Harris and Mr. Noseworthy expressed concern over the costs, the increase in costs and the necessity of the costs of the Corporate Planning & Consumer Relations Division (The Division) and Management Information Services (MIS).

CORPORATE PLANNING & CONSUMER RELATIONS DIVISION (THE DIVISION)

The following is a summary of Mr. Erbland's evidence:

In early 1987 NLP created the Division. The purpose of the Division is to help NLP and its internal structure and organizational structure move from an organization which was internally focused on technical expertise to an organization which continues to do those things well but also incorporates a broader view of the customers' requirement. In doing that, NLP has structured the division in four departments. The Division is to be the catalyst within the Company which allows NLP to change its structure in such a way that NLP is able to satisfy the requirements of its customers, and in order to do that in a way that it has never done before and better than it has done before, NLP has to change its structure. NLP has been a very technically expert qualified utility that has done its best, as well as any utility, in providing reliable electrical energy. As NLP moves into the next decade, what it recognizes is that satisfying customer requirements is going to mean doing all of these things as well and better than it ever did them, but it is also going to mean doing a whole host of new things.

The four departments are Corporate Communications, Corporate Planning, Marketing and Rates & Forecasts.

Corporate Communications is responsible for ensuring good communications generally within and outside NLP. The particular emphasis is on communications with customers and consumer groups.

It carries on the traditional type of activities that NLP has been engaged in in terms of safety and education for school children through school programs.

There was a staff of five in 1988, six in 1989 and a forecast of six in 1990, all of whom were transferred within NLP.

In 1988 the cost of the department was $751,454; in 1989 it is projected to be $830,400 and in 1990 it is forecast to be $906,750.

Corporate Planning is the department NLP intends to position as its internal consultant for the remainder of the organization. Its purpose is to provide the background staff work in order to get NLP's Corporate Plan in place.

It has done this in the preparation of NLP's Corporate Objectives, Corporate Goals and Corporate Mission.

There was a staff of two in 1988, two in 1989 and a forecast of three in 1990, one of which was transferred within NLP.

In 1988 the cost of the department was $164,504; in 1989 it is projected to be $394,581 and in 1990 it is forecast to be $339,312.

Marketing looks at the question "what do customers want". Until it is know what it is the customer wants it is difficult to deliver programs that will satisfy the requirements.

There is a marketing program section and a marketing analysis section which are being developed. When the analysis is in place and NLP begin to understand the things customers want NLP can begin delivering the programs that will meet those requirements.

There is a customers contact section and an energy utilization section. These two sections are where NLP is beginning to learn about DSM. The sections are investigating the various types of DSM programs that are available.

The Electrotechnologies Section will be moved to Marketing during 1990. This section is the genesis of DSM customer support type activities.

There was a staff of four in 1988, five in 1989 and a forecast of six in 1990, two of whom were transferred within NLP.

In 1988 the cost of the department was $104,792; in 1989 it is forecast to be $574,003 and in 1990 it is projected to be $908,675.

The Rates & Forecast department has a Rate Design section, Administration section and a Forecasting section. The department looks at the rate structure to develop a long term plan which will help satisfy customer requirements and design rates that reflect properly the costs of providing the service.

In 1988 Commercial Services & Credit was moved to Rates & Forecasts. It has the responsibility for customer policies such as line extensions, contributions in aid of construction, many of the billing policies, budget billing plans and credit.

There was a staff of seven in 1988, 16 in 1989 and a forecast of 17 in 1990, 12 of whom were transferred within NLP.

In 1988 the cost of the department was $450,210; in 1989 it is projected to be $640,100 and in 1990 it is forecast to be $793,124.

NLP has forecast a staff of 32 for the Division in 1990, 21 of whom were transferred within NLP and 11 of whom are new employees added since the Division commenced in 1987.

We accept the forecast expenses of the Division for the Test Year. At the next rate hearing on its own behalf we require NLP to submit a full report on the activities and accomplishments of the Division.

MIS

Dr. Bruneau testified that NLP recognizes that its ability to meet the requirements of customers over the next decade will depend upon its ability to store and retrieve customer information efficiently The success in tailoring individual services to specific customer segments and in offering customers choices will depend upon the ability to process the information associated with each customer account. To meet these future customer needs, NLP has initiated the development of new computer software that will support the ability to meet these information processing requirements. this software, know as the Customer Service System (CSS), is being developed under the direction of an executive steering committee led by NLP's Vice-President Technical Services and using teams of employees representing many of NLP's Divisions.

In cross-examination Dr. Bruneau stated NLP needs a system that allows it to better understand and analyze the behaviour of customers by segments which cannot be handled now.

The system now in place was designed at a time when essentially it ran as a batch process system. It is 20 years old. NLP is able to maintain it but at considerable cost and it is inadequate to meet anything more than the absolute basic requirements.

NLP believes that the significant investment required can reduce the costs of some of the systems and improve the quality of service for individual customers.

Mr. Ryan testified that MIS has been understaffed for some time as a result of restraint. this has prevented NLP from developing the systems required to improve service to its customers and increase the efficiency of its operations.

After reviewing the situation in 1988 NLP decided t correct the problem

over a five year period. This decision along with the decision to proceed with the new CSS created a need for additional people.

Consent #16 shows that MIS had a staff of 38 in 1988, 44 in 1989 and a forecast of 48 in 1990. CSS has a staff of 1 in 1988, 1989 and 1990.

In cross-examination Mr. Ryan stated that CSS is cost effective but even if it was not it is something that has to be done.

Mr. Ryan submitted Consent #15 consisting of four bar charts comparing the computer capabilities of NLP and 10 electric utilities across Canada.

NLP has 2.4 employees per computer terminal and micro-computer. Other utilities vary from 3.8 employees to 1.3 employees. NLP's central computer processing power is 40 instructions per second per customer, the lowest of all the utilities with the exception of two municipal utilities. The highest in 390 instructions per second.

NLP's storage capacity is 60K Bytes per customer, the lowest of all the utilities with the exception of one municipal utility. The highest is 600.

NLP's data processing operating expense per customer is $13.00, the lowest of all the utilities with the exception of two municipal utilities. The highest is $90.00.

Mr. Ryan stated that the main area of concern and expenditure for the next few years relates to the main frame computer, its capacity and the systems that work on it.

NLP entered into evidence Consent #17, the Revised MIS 5 year budget 1989 to 1993.

Revised Scenario Total Budget Summary	Revised Scenario 1989	Revised Scenario 1990	Revised Scenario 1991	Revised Scenario 1992	Revised Scenario 1993	5 Year Total
Operating Budget						
Labour	1,224	1,325	1,391	1,575	1,626	7,141
Other	1,200	1,260	1,055	975	1,045	5,535
Total Operating Budget	2,424	2,585	2,446	2,550	2,671	12,676
Capital Budget						
Hardware	1,195	2,100	1,300	1,400	1,000	6,995
Projects	1,760	2,990	4,358	2,061	1,781	12,949
Software	275	160	165	170	175	945
Total Capital Budget	3,230	5,250	5,823	3,631	2,956	20,4889
Total MIS Budget	5,654	7,835	8,269	6,181	5,627	33,566

For 1990 the forecasts are Operating Expenses $2,353,000 and Capital Budget $5,180,000 for a total MIS Budget of $7,583,000.

The original five year budget done in 1988 was $22,746,000.

The Capital Budget for projects of $12,949,000 for the five years includes $8,299,000 for consultants.

In cross-examination Mr. Warr pointed out that the original budget was prepared by NLP staff while the present budget was prepared by consultants.

MIS is responsible for all computer operations of NLP.

He said CSS is practically a cripple at the present time and certainly needs to be replaced.

The evidence adduced by the cross-examination of NLP's witnesses shows that NLP's computer system is 20 years old, costly to operate, inadequate to meet anything other than basic requirements, below the standards of all but two Canadian electric utilities and in the words of Mr. Warr, CSS is practically a cripple at the present time and needs to be replaced.

We are also concerned, as Mr. Harris and Mr. Noseworthy are, that the type of organization which is developing is needed by and will be beneficial to the ratepayers in relation to the costs that will have to be borne by them.

NLP is commencing the second year of its five year plan for MIS. Insufficient evidence has been submitted to convince us that the projected amount of $33,566,000 (including $8,299,000 for consulting services) is required over the five year period. The evidence does show that more funds must be spent to upgrade MIS and we reluctantly accept the 1990 MIS Forecast.

At the next NLP rate hearing on its own behalf we require NLP to submit detailed information on the condition and suitability of its computer system, what is necessary to upgrade it to meet the requirements of its customers, what these requirements are and the relationships between the costs and the benefits.

We believe it would be of benefit to have the Vice-President, Technical Services give evidence.

DEMAND SIDE MANAGEMENT (DSM)

The following is a summary of Mr. Carter's evidence:
In general, Mr. Carter defined DSM as including all deliberate activities by an electric utilities which are designed to influence customer use of energy in a way that will produce desired changes int he utility's load. this may involve load building or load reduction. The benefit of various load reduction programs results

primarily from their impact on the need for and timing of new generation, transmission and distribution projects, and the associated cost savings.

Owing primarily to the high cost of constructing new facilities and because of environmental constraints imposed upon the siting and construction of new generation plants and transmission line, Canadian utilities are increasingly seeking to influence electricity demand rather than solely trying to meet expected demand through building new supply installations. Avoiding or postponing the creation of additional electricity supply capabilities is a direct benefit of DSM.

The actual historical and forecast sales by customer class contained in AFR-1, Page 1, for the years 1979, and 1984-1990, clearly indicated the increasing proportion of NLP's sales which are accounted for by All-Electric customer classes, especially the Domestic All-Electric class. The Domestic All-Electric class accounted for 33% of NLP's sales in 1979; this has grown steadily to the point where this class is expected to account for 40% of sales in 1989 and also in 1990. the share of total sales accounted for by General Service All-Electric customers has increased form 17% to 19% over the same period. Moreover, the Domestic All-Electric class has accounted for 55% of the increase in NLP's total sales of 1,440 GWh (i.e. 4,130 Gwh minus 2,690 Gwh) recorded from 1979 to 1990; further, Domestic All-Electric and General Service All-Electric have together accounted for 76% of the increase ins ales from 1979 to 1990. Domestic All-Electric sales are expected to grow by 10.1% in 1989 alone, after the strong growth recorded in 1988 of 8.2%. The changing composition of NLP's electrical load has had, and can be expected to have, a significant impact on NLP's system, which will have implications for future Rates and Capital Expenditure requirements.

The historical and forecast composition and level of sales has resulted in a deteriorating NLP system Load Factor and a very strong growth in Peak.

The Load Factor and Peak are important variables in electric utility economics, in terms of their influence on system planning and capacity investment decisions. Owing primarily to the seasonal nature of space heating load, All-Electric customers, especially in the Domestic class, typically have relatively low Load Factors and high Peak demand. In AFR-1, Page 1, Line 22, it is indicated the NLP system Load Factor declines from 48.7% in 1979 to 46.9% in 1989 and 46.8% in 1990. IN AFR-1, Page 1, Line 21, it is indicated that the NLP Peak has increased significantly over time. In 1988, Peak on the NLP system increased by 8.9% and in 1989, it is forecast to increase by 5.6%. The Peak is increasing at a higher rate than NLP sales, which reflects increasing proportion of NLP sales, which is accounted for by All-Electric customers. The 1990 Peak is 20% higher than it was three years earlier in 1987.

It is desirable from the point of view of electric utility economics to see an increase in the Load Factor on the NLP system and a less

significant increase in Peak, perhaps even a decrease in Peak over time. The absolute increase in NLP energy sales is extremely important. Outside of the issue of the impact that the composition and level of sales has on the peak and load factor from the point of view of Newfoundland and Labrador Hydro (Hydro) as the major generator of electricity in the Province, the absolute increase in energy sales is extremely important and how that will change over time. Hydro plans its generation capacity on the basis of energy sales forecast and endeavour to ensure that there is sufficient generation capacity in place to meet expected sales under certain criteria.

The deterioration in NLP's Load Factor, and high growth in Peak capacity requirements can have significant implications for NLP's Cost Efficiency, Capacity Utilization Rates and Transmission Distribution, Substation and Other Plant and Equipment Requirements. This will ultimately have significant implications for future capital expenditure requirements and consequently future rates.

DSM options may be available to NLP to influence the increasing capacity requirements and associated capital expenditures, to improve the load factor and peak, in an effort to control costs and minimize the future rates to customers.

Mr. Carter is not in a position to recommend specific types of programs which are used elsewhere as most appropriate to NLP, or indeed to the electricity industry in Newfoundland in general, including Hydro. The design of appropriate programs and strategies cannot be achieve,d without a sufficient understanding of the subject of DSM and without analyses of the potential benefits of various options in view of the uniqueness of the electricity industry and market in Newfoundland.

With respect to DSM and the essential approach which NLP currently takes to this issue, the implementation of more active DSM programs may result in reorientation and redirection of a significant portion of electricity industry expenditures which would be made to increase supply installations toward expenditures which are designed to marge and otherwise influence demand. Price signals and information are in many respects the more passive forms of DSM. More active approaches linked to strategic conservation potential are used and are available. These have already been incorporated by the three largest electric utility companies in Canada.

NLP lacks basic customer data with respect to being able to isolate what customers and what component of customers demand is contributing to peak, basic data to be able to assign realistic load factors to customers, and the ability to assign peak to customer classes. There should be some urgency in collecting that kind of data because it is essential to the rate making process. Lead factor by customer class is the critical factor in allocating demand costs and peak. NLP ought to be spending and devoting significant resources toward the assembly of adequate data for rate setting purposes but more importantly for DSM options because, in order to evaluate what can be expected from the point of view of various DSM measures, basic customer knowledge

and a good data base is absolutely essential.

Mr. Carter recommended that the Board request NLP and Hydro to jointly evaluate the necessity and potential economic attractiveness of various DSM options which may be applied in the electricity industry in Newfoundland and if appropriate prepare a specific plan for implementation of such programs.

Mr. Harris asked the Board to order NLP, in co-operation with Hydro, to produce by June 30, 1990, a five year plan evaluating the costs and benefits of DSM options, both active and passive, based on the knowledge base available in other utilities throughout Canada and NLP's current knowledge base together with estimates and measurements attached so that this plan could be evaluated at a public hearing by the Board and interested intervenors.

Mr. Erbland testified that in 1988 the Rates & Forecasts Department added a Director of Electrotechnologies. This was the first position established to begin focusing on DSM and providing customer options that could allow them to properly control their usage of electricity if they wished to do so.

NLP has developed a draft marketing plan in which a specific section deals with DSM. NLP is currently engaged in a process which is going to take it from the draft document into a discussion, beginning at the executive level, of all of the issues that have been outlined by the people in the task forces, working with the assistance of the consultants. The executive group will be analyzing all of that material. They will be looking at the recommendations of the consultants and from that NLP will be developing a set of marketing objectives. From that NLP will develop a set of specific marketing goals which will then lead into a set of, among other things, DSM programs but in a context where they understand what they are doing. What they do not want to do is embark upon expenditures for specific demand side programs as an almost knee jerk reaction to trends which NLP think are occurring elsewhere. NLP want to understand where they can provide the best value for their customers through these dnd side programs. NLP want to make sure that they understand, not only the cost of the programs which they have some idea of now but they also want to understand the benefits that those programs are going to deliver in the Newfoundland environment and that's the stage that they now are at with that Strategic Marketing Plan.

We agree with Mr. Carter that NLP and Hydro st work together in developing DSM and is aware that Hydro has recently obtained the services of a consultant to advise them.

We also agree with Mr. Carter and Mr. Erbland that the design of appropriate programs cannot be achieved without a sufficient understanding and without analysis of the costs and benefits of the various options.

We will ask dr to discuss DSM at its next rate hearing scheduled for March, 1990.

We understand that NLP expect to apply to the Board for a rate increase on its own behalf in late 1990 or early 1991. We will require a report at that time on the progress NLP has made in developing DSM options.

At the next rate hearing, or not later than February 1, 1991, we order NLP to submit detailed information on the present condition of its computer system and a full explanation as to what is necessary to upgrade it as the cost of change in the direction of NLP in the areas of improved customer service and community involvement will have to be borne by the ratepayers and should be cost effective.

This means that NIP will be required to present evidence to support the Capital and Operating expenditures of the Division, MIS and DSM, and identify the benefits to the customers for 1990 and projections for 1991, 1992 and 193.

RATE BASE

Noseworthy reviewed the calculation of the rate base for 1987 and 1988 and the forecast for 1989 and 1990 and confirmed that it is consistent with previous Board Orders.

We therefore accept the average rate base of $316,426,000 for the year ending December 31, 1987, the average rate base of $338,549,000 for the year ending December 31, 1988, the estimated average rate base of $365,303,000 for the year ending December 31, 1989, and the estimated average rate base of $401,368,000 for the year ending December 31, 1990, filed by NLP as Exhibits KSW-9 and 10 Revised.

RATE OF RETURN

Capital Structure

NLP's net investment in property and assets used and useful in rendering electrical service constitutes the rate base. This investment includes long tem debt, notes payable to chartered banks, preferred shares and common equity. The just and reasonable return to which NLP is entitled is influenced therefore, by the ratio of each of these components to the total investment, the embedded cost of debt and preference shares and the earnings required on common stock to maintain its marketability and provide adequate coverage of interest and of preferred dividends to maintain a sound credit rating.

NLP's average capital structure is shown below:

	Total 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	42.1

Estimate as Proposed by NLP

1989	48.4	8.9	42.7
1990	48.9	7.8	43.3

Mr. Warr testified that it is NLP's position that the objective of a "sound credit rating" as specified in The Electrical Power Control Act requires, as a minimum, that the "A rating presently assigned to NLP's first mortgage bonds be maintained. There are factors outside of NLP's control that can bear on its bond rating such as the general outlook for the provincial economy; however, there are several quantifiable financial objectives over which management can exercise some control and have a positive effect on the maintenance of the "A" rating. These financial objectives are:

(a) A debt ratio of 45 to 50 per cent, a common equity ratio of 42 to 47 per cent and preferred ratio of 6 to 9 percent.

(b) 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.

(c) To maintain the marketability of NLP's common equity.

Embedded Cost of Capital

NLP's embedded cost of debt was 11.74% in 1988 and is estimated to be 10.32% in 1989 and 10.31% in 1990.

NLP plans an issue of 25 year $40,000,000 First Mortgage Bonds in August at an estimated rate 10.55%.

The embedded cost of preferred equity was 7.83% in 1988 and is estimated to be 7.75% in 1989 and 7.75% in 1990.

The cost of debt and preferred equity capital is negotiated in the capital market and to a large degree is beyond the control of NLP 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 10.31% in 1990 for total debt, and 7.75% in 1990 for preferred shares are fair and reasonable cost rates to use in determining a just and reasonable Rate of Return for NLP.

COMMON EQUITY

NLP's proposed capital structure for 1990 is 48.9% debt, 7.8% preferred

equity and 43.3% common equity.

At existing rates NLP's interest coverage in 1990 would be 2.5x total debt and 2.1x total interest and preferred dividends.

At proposed rates NLP's interest coverage in 1990 would be 3.0x total debt and 2.5x total interest and preferred dividends.

Interest coverage on total debt was 3.2x in 1986, 2.9x in 1987, 3.0x in 1988 and is estimated to be 2.9x in 1989.

Mr. Warr testified that NLP's debt interest coverage has fallen off despite a strengthening capital structure. The average common equity ratio was 42.1% in 1988, at the low end of NLP's currently targeted range of 42% to 47%. In spite of an increased common equity base, returns to common equity are insufficient to sustain total debt interest coverage at the low end of NLP's modest target of 3.0 to 3.4 times and it was below the target at 2.9 times in 1987.

Similarly, the coverage of total debt interest and preferred dividends is at the bottom of NLP's target. A review of NLP's financial ratios over the past five years makes it clear that with the decrease in common equity return and the loss of a preferred share market a more conservative capital structure, i.e. a larger common equity base, will be required if fixed income coverages are to remain competitive. Therefore, NLP's target common equity ratio of 42% to 47% is reasonable.

Mr. Warr testified that NLP considers that the range of rate of return on common equity of 13.7% to 14.2% determined in 1986 and confirmed in 1987 continues to be appropriate since there have been no substantial changes in the principal factors considered in determining the range.

At the time of the last rate of return hearing, the Consumer Price Index had grown from 4.0% in 1985 to 4.1% in 1986 and 4.4% in 1987. However, in 1988 the growth slowed to 4.1% due primarily to a sharp reduction in food prices. The current outlook for 1989 is that inflation will rise to an annualized rate of 5.2% (based upon actual changes to September, 1989).

The Prime Rate charged by the Canadian Chartered Banks has risen from 9.75% in the last quarter of 1987 to it current level of 13.5%.

The bond market improved during 1986 with long term Canada's being 9.48% at the time of the 1986 hearing. The long term bond market deteriorated in 1987 with the yield on long term Canada's yielding rising to 10.8% at the time of the 1987 hearing. The yield on long term bonds subsequently declined to 9.60% in early 1988, then began to increase along with short term interest rates. In August 1988 the yield on long term Canada bonds peaked around 10.65% and has gradually declined to its current level of 9.43%.

The current inverted yield curve has existed since September. Current

thinking is that long term interest rates will not drop any lower in the near future but will more likely rise, while short term interest will gradually decline until a normal yield curve is established with long term interest rates one to two percent higher than their current levels and the prime bottoming around 10.0%.

At the time of the 1986 hearing inflation was at 4.0% and the yield on long term Canada bonds was 9.48%. The Board set a range of Rate of Return of 13.7% to 14.2% with rates based on 13.73%.

In the Newfoundland Telephone hearing in 1987 inflation was 4.1%, the yield on long term Government of Canada bonds was 9.5%. The Board set a range of Rate of Return of 13.2% to 14.2% with rates based upon 14.02%.

In the 1987 NLP hearing, inflation was 4.5% and long term Canada bonds were yielding 10.8%. The range of Rate of Return was set at 13.7% to 14.2% with rates based on 13.95%.

Currently we are faced with an inflation rate of 5.2%, and a long term Canada yield of 9.43%.

There has been no material change in business or financial risk of NLP since the last hearing.

Mr. Harris argued that CAC believe that both operating expenses and capital expenditures can be controlled through the Board controlling the range of the rate of return on common equity. CAC is asking the Board to make an order that NLP revise its budget and that this Board can control and provide incentives for NLP to become more efficient and to remove and eliminate unnecessary expenditures to force a re-examination of some of these run away soft costs, by setting a rate of return within the range of 13.2 to 14.2. With the rates set at 13.2%, this would provide an incentive to NLP to become more efficient and to eliminate those operating expenses which can and should be eliminated. It will also, by having the rate set at the low end of the range, force NLP to work hard to obtain the rate of return on equity, and NLP will be less cavalier about increasing capital expenditures.

CAC believe that NLP's financial objectives of a debt ratio of 45 to 50%, a common equity ratio of 42 to 47% and a preferred equity ratio of 6 to 9% is not required nor reasonable.

Demand for Particulars CAC-32 includes a letter from B.I. Neysmith, President, Canadian Bond Rating Service (CBRS), which was introduced into evidence in Board Order P.U. 17 (1987) dated November 10, 1987.

The letter states inter alia:

"Because of the higher risk primarily associated with the provincial economic base, the Company must maintain higher financial ratios. In our opinion the Company must maintain at least a 3.0x interest coverage to maintain its "A" rating

under present conditions."

In Board Order P.U. 17 (1987) the Board stated in its findings:

"Section 3 of the Electrical Power control Act states, inter alia, that:

> "It is hereby declared to be the policy of the province that the rates to be charged, either generally or pursuant to specific contracts, for the supply of power within the province....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 pursuant to the Public Utilities Act,....so that it is able to achieve and maintain a sound credit rating in the financial markets of the world."

The Board believes that the maintenance of NLP's "A" rating is necessary in order to comply with the requirements of the Electrical Power Control Act and that a range of allowed return on common equity in which the minimum of the range would provide 3.0x interest coverage will maintain this rating."

Mr. Warr's exhibit KSW-8 shows that NLP's proposed return on common equity provides an interest coverage on total debt of 3.0x the minimum required by CBRS.

Interest coverage depends on the equity ratio and the return on equity. If equity is reduced and debt increased a higher rate of return on equity is required to maintain the interest coverage.

We find that NLP's capital structure and proposed return on common equity is required to provide an interest coverage on total debt of 3.0x.

We find that NLP's allowed return on common equity of 13.7% to 14.2% will be maintained. Rates will be set at 13.95%, the mid-point of the range. For the purpose of determining a just and reasonable return on average rate base for 1990 this range will be used.

A return on average common equity of 13.95% will give NLP the opportunity to achieve the following estimated forecast for 1990:

Interest coverage - All debt	3.0%
Interest coverage - total interest and preferred shares	2.5%

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 NLP's average total invested capital in the test year based on information submitted by NLP 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 %
1990				
Total Debt	197,098	48.86	10.31	5.04
Preferred Equity	31,455	7.80	7.75	.60
Common Equity	174,845	43.34	13.70/14.20	5.94/6.31
	403,398	100.00		11.58/11.95

The average total invested capital for 1990 is forecasted to be $403,397,000 and the estimated average rate base for the same period is $401,368,000. The difference is $2,029,000 or approximately .50%.

We 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 1990 lies between 11.58% and 11.95% on its actual average rate base.

REVENUE REQUIREMENTS

As a result of the foregoing findings we find that the estimated operating revenue requirement of NLP for 1990 is $295,345,000 in order to have the opportunity to earn a 13.95% return on its common equity. This revenue requirement will increase rates on average by 3.91%.

MUNICIPAL TAXES

Dr. Bruneau testified that "municipal taxes are a component of the rate charged to customers of NLP over which NLP has no control. NLP operates in 220 organized municipalities, each of which is able to levy taxes on NLP's property and/or sales. The level of taxation has been increasing in recent years.

Under the present rate structure the cost of municipal taxes is born equally by all customers irrespective of where they live. Prior to 1987, these taxes were treated like other operating expenses in determining rates to our customers. Since 1987, the cost of municipal taxes have been treated as a separate and distinct component of rates to NLP's customers under the Municipal Tax Adjustment (MTA).

At the 1987 rate hearing I described the growing inequity that was being created by allowing municipalities with very high tax rates to, in effect, collect these taxes from customers who reside outside those municipalities. I further observed that this is not a problem which is unique to NLP but is shared by the telephone and cable companies. Although NLP would prefer to see this matter resolved through government action, the inequities have grown to the point where further action must be taken. Consequently, NLP is proposing that where a municipality imposes taxes in excess of 2.5% the excess be recovered from customers in that municipality through a surcharge on their bills.

The Municipal Tax Clause has been modified to remove the section referring to the transition period from November 12, 1987, to June 30, 1988, to allow NLP to apply a surcharge on customers' bills in municipalities where the municipal tax rate exceeds 2.5% and to apply the MTA factor to Street and Area Lighting rates. NLP propose to phase in the MTA Surcharge over a three year period by establishing a maximum surcharge level for each year. This will allow municipalities adequate lead time to address their respective situations and to protect NLP's customers from dramatic bill increases in these areas. The change in applying the MTA factor to Street and Area Lighting rates reflects the fact that virtually all municipalities now include Street Lighting revenue when calculating NLP's Tax bill.

NLP propose to implement the revised Municipal Tax Clause on July 1, 1990, when the normal update of the MTA factor is completed.

In the first year, NLP customers in a municipality that taxes NLP in excess of 2.5% of the revenue NLP earns in the community shall be charged a surcharge of 2.5% of the excess revenue over a 12 month period. Commencing July 1, 1991, the surcharge will be 5.0%; commencing July 1, 1992, the surcharge will be 7.5%; after June 30, 1993, the surcharge will be the full amount of taxation in excess of 2.5% of the revenue NLP earns in the community.

Based on 1988 tax rates, 80 of the 220 municipalities or approximately 34,000 of NLP's customers will be affected by the surcharge.

Mr. Harris requested the Board to disallow the proposed surcharge as CAC believes it to be a punitive measure and that the Board is the wrong body to engage in this type of activity.

We do not agree with CAC. It is not the municipal customers receiving the benefit of the tax that are being punished but rather all the customers served by NLP who are paying the excess tax charged to NLP by such municipalities. We believe it has a responsibility under the Public Utilities Act to deal with this matter. The effect of varying levels of municipal taxes in various municipalities served by a utility is discriminatory where the taxes are paid by the Company out of revenues derived from rates applicable to all of its customers; the customers in a municipality that levies no taxes or less taxes than other municipalities are in effect paying all or a portion of

the taxes levied by such other municipalities.

We find that NLP should implement on July 1, 1990, a Municipal Tax Surcharge to apply to customers in municipalities imposing municipal taxes in excess of 2.5% of the revenue NLP earns in the municipality.

RATES

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

NLP 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.

NLP is proposing to:

(1) vary increases to the rate schedules in order to move closer to targeted revenue/cost ratios outlined above.

(2) Make rate structure modifications that will result in more uniform cost recovery within rate classes,

(3) more adequately recover customer-related and demand-related costs from low load-factor customers.

4) make rate changes that will permit the orderly incorporation of the anticipated purchased power rate structure changes from Newfoundland and Labrador Hydro.

5) make further progress in the elimination of Rate # 3.0 and the churches and schools discount under Rate # 2.2 as agreed at previous rate hearings.

As in the past the results of the most recent cost allocation study were used as the general guideline to determine the appropriate increase for customer classes other than Street and Area Lighting for which more detailed cost data are available. The table below indicates the revenue to cost ratios from the 1987 Cost Allocation Study, which have been restated as if the November 12, 1987 rates were in effect for the full year.

1987 REVENUE/COST RATIO

Rate Class		Revenue as a Percent of Cost at Existing Rates
#1.1	Domestic	91.0
	Regular	86.4
	All-Electric	93.7
#2.1	G.S., 0-10 kW	105.2
#2.2	G.S.,10-100 kW (110 kVA)	110.2
#2.3	G.S., 110-1,000 kVA	118.4

#2.4	G.S., Over 1,000 kVA	130.3
#3.0	G.S., All-Electric, 9-10 kVA	95.6
#4.1	Street and Area Lighting	94.9

The guidelines that governed the design of the proposed rates for this application are:

(1) Thee increase for each Rate Class, other than Rate #3.0, should not exceed two times the overall increase of 3.91 percent.

(2) No customer within a Rate Class should receive an increase, on an annual basis, greater than ten percent plus the percentage increase on the Rate Class unless special circumstances prevail or the dollar amount of the increase is small.

3) Street and Area Lighting Rates should be derived by using the most current cost data under established methodology.

The increases by rate class are:

(a) The revenue generated under the Domestic Class Rate #1.1, will be $165,782,000, a 4.60 percent increase.

(b) The revenue produced under the proposed Rate #2.1, General Service 0-10 kW, will be $7,207,000, a 4.54 percent increase.

(c) The revenue produced under the proposed Rate #2.2, General Service 10-1OO kW (110 kVA), will be $44,076,000, a 3.84 percent increase.

(d) The revenue generated under the Rate #2.3, General Service 110-1,000 kVA, will be $45,057,000, a 1.39 percent increase.

(e) The revenue generated under the proposed Rate #2.4, General Service over 1,000 kVA, to be $20,732,000 a 0.51 percent increase.

(f) The revenue generated under the proposed Rate #3.0, All-Electric General Service 0-10 kVA, will be $1,360,000, a 11.69 percent increase.

(g) The revenue under the proposed Rate #4.1, Street and Area Lighting Service, will be $9,364,000, an 8.78 percent increase.

(h) If the proposed rates were in effect for the full year 1990, the total revenue generated would be $295,409,000, an increase of 3.83 percent. However, as the proposed rates become effective on bills based on consumption on and after February 1, 1990, the total

revenue for 1990 on proposed rates will be $293,910,000.

The more significant issues and concerns in rate design were:

(a) The domestic class Basic Customer Charge recovers only about 60 percent of the customer-related costs, leaving $12.6 million to be recovered elsewhere in the rates. In other words, to fully recover the total customer related costs, the present Basic Customer Charge of $10.35 per month would have to be increased to $16.98, or an increase of 64 percent.

(b) There were 66,385 monthly bills rendered to domestic class customers at zero kilowatt-hours during 1988. There were an additional 68,030 bills rendered between zero and 100 kilowatt hours during the year or 7.2 percent of all the domestic class bills rendered in 1988 were below 1OO kilowatt-hours.

(c) The Domestic All-Electric sub-class is now receiving 94 percent of total cost. However, the domestic Regular sub-class is recovering only 86 percent of the cost NLP incurs in serving them.

(d) The mode of the sales frequency distribution is at 100 kilowatt hours per month, the median is at 690 kilowatt-hours per month, and the mean is 1,127 kilowatt-hours per month. This skewness towards lower consumption customers indicates a large proportion of Domestic bills are for very low usage, due in large measure to the high number of summer cottages and the significant number of residences that are vacant for several months each year.

(e) As a customer's energy usage increases, the customer's load factor also increases. This causes the per-unit demand-related cost that NLP incurs to serve the customer to decrease as energy usage becomes greater.

(f) Very large Basic Customer Charges are unpopular with customers due to the perception of "paying a lot for nothing".

(g) The current rate Structure of Newfoundland and Labrador Hydro rolls all costs, ie., demand-related, energy-related, and customer-related, into a single Energy Charge rate. This rate form makes it difficult for the Company to send its retail customers proper pricing signals.

One of the effects of not fully recovering customer-related costs in the existing Basic Customer Charge is to create a subsidy within

the class, where small volume users are subsidized by larger volume users. This is happening under Rates #1.1, #2.1, and #3.0.

This under recovery causes the Energy Charge to be priced higher than demand-related and commodity-related costs incurred in providing the service. The other effect, and a very serious one, is that the Energy Charge becomes further distorted relative to the price of competitive energy forms.

NLP analyses, as summarized above, that under proposed rates the Basic customer charge should be increased significantly and the balance of the unrecovered customer-related cost should be recovered in a small Energy Charge block that affects the vast majority of customers. This will permit our non-demand metered rates to better track cost incurrence.

Declining block rates that properly track cost are not promotional if all commodity-related and demand-related costs are recovered in the terminal block. Promotional declining block rates tend to recover only commodity-related cost or, at best, a small portion of demand-related cost.

The following is a summary of the most significant proposed rate changes:

DOMESTIC RATE:

NLP is proposing two significant changes in the Domestic rate: increase the Basic Customer Charge from $10.35 to $11.85 per month, or 14.5 percent increase, and create a small block of energy, 150 kilowatt-hours priced at 6.839 cents per kilowatt-hour to capture a portion of the remaining unrecovered customer-related cost. The remaining energy has been increased slightly to 5.819 cents per kilowatt-hour.

GENERAL SERVICE RATE #2.1

NLP is proposing changes in the General Service 0-10 kW rate consistent with the approach used with the Domestic rate described above. The result is an increase in the Basic Customer Charge from $14.76 to $16.00 or an increase of 8.4 percent. A first block of 100 kilowatt-hours priced at 8.733 cents has been created. The energy charge for the remaining energy has been increased to 7.713 cents per kilowatt-hour. Currently all energy is priced at 7.566 cents per kilowatt-hour.

ALL-ELECTRIC GENERAL SERVICE RATE #3.0

NLP is proposing a rate structure similar to Rate #2.1 as the customers on these two rates are basically the same. The increases reflect NLP's intent to phase out this rate class by merging it with Rate #2.1. The basic Customer Charge has been increased from $11.71 to $14.99, or 28.0 percent, to further reduce the differential with Rate #2.1. NLP also propose to create a 100 kilowatt hour first block, similar

to Rate #2.1, priced at 7.946 cents per kilowatt-hour. The energy charge for the remaining energy has been increased to 6.926 cents per kilowatt-hour. Currently all energy is priced at 6.436 cents per kilowatt-hour.

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 $1.90 per kW under the existing rate to $1.00 per kW under the proposed rate.

DEMAND/ENERGY RATES

In grouping customer classes, NLP endeavour to group customers with substantially similar usage characteristics to reduce subsidization between classes. Costs are assigned to a class using the average load factor for the total class. NLP still must deal with the problem of subsidization within rate classes. The most significant factor in determining the cost tat NLP incurs in serving different customers is their specific load factor. Analyses shows that NLP's higher load factor customers subsidize NLP's lower load factor customers. NLP have therefore placed the larger increases in the demand charges and initial energy blocks.

STREET AND AREA LIGHTING

The installed costs for fixtures, poles and underground wiring are based on embedded costs up to December 31, 1988, the latest data available. Fixed charges are based on estimated cost of capital for 1990. 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 1987 Cost Allocation Study. This unit cost was adjusted to allow for the July 1, 1989, rate adjustment and was then escalated by the average average increase in rates currently being proposed to arrive at the unit cost of electricity of 9.399 cents per kilowatt-hour.

The proposed monthly rates for poles, underground wiring and all fixtures except the 175 watt MV and the 100 watt HPS fixtures are the monthly cost. 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.

CAC has very serious concerns with NLP's proposal for Rates # 1.1, # 2.1 and # 3.0 where there is a first block of kilowatt-hours; 150 kilowatt hours in Rate # l..l and 100 kilowatt hours in Rates # 2.1 and #3.0; with the balance of the kilowatt hours sold at 1.02 cents per kilowatt hour less than the first block.

Mr. Harris argued that this is sending the wrong signal to consumers, that signal being that the more you use the cheaper it is which discourages conservation.

CAC requested the Board to order NLP to redesign the rate with a basic customer charge and at least a flat block so that the situation is not made worse.

We agree with CAC that these proposed rates send an incorrect signal to consumers

We find that the first block of kilowatt hours should be eliminated and that the basic customer charge be increased to include the revenue lost by having only one energy charge.

The Basic Customer Charge will be:

Domestic Rate # 1.1	
Base Rate (Excl RSA & MTA)	$13.05
Final Rate (Incl RSA & MTA)	$13.29
General Service 0 - 10 KVA Rate # 2.1	
Base Rate (Excl RSA & MTA)	$16.37
Final Rate (Incl RSA & MTA)	$16.68
All-Electric General Service - Rate # 3.0	
Base Rate (Excl RSA & MTA)	$15.31
Final Rate (Incl RSA & MTA)	$15.60

On December 15 a letter was received by the Board from Mr. E. Fisher, President of the Newfoundland and Labrador Pensioners and Senior Citizens Federation requesting that the Board review the decision of NLP in 1987 to continue to include the approximately 235 Seniors' clubs in the General Service Rate category.

Mr. Fisher requested that the Domestic Rate be used for the club as they are an extension of the homes of the club members most of whom live on fixed incomes and their ability to support their clubs activities, including maintenance and operating costs is limited.

NLP'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."

NLP submitted an analyses of 43 clubs. It shows that moving to a domestic rate for this sample of clubs would reduce bills in a wide range of between 10% and 59%. On their present rate their yearly electricity bill ranges frcm $170.68 to $6,728.26.

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 NLP's rate structure is not the appropriate forum in which to incorporate social policy.

Mr. Harris argued that while no general discount or subsidy ought to be granted, the domestic rate should apply to those senior citizens clubs whose use of electricity is comparable to that of the average domestic customer as he agrees with Mr. Fisher that senior citizens clubs are an extension of the homes of members.

We believe that the recommendation of Mr. Harris would not only be unfair to all customers of NLP but would be unfair to senior citizens clubs that would not clarify for the domestic rate and whose members could have the same financial problems as other senior citizens and many other customers of NLP.

We will not order NLP to make any change in its definition of "Domestic Unit".

Prior to 1983 the Churches and Schools Discount on Rate # 2.2 (10-110 KVA) was defined as being one-half the demand charge. In 1982, for rates in 1983 NLP first proposed the phase out of the discount which was set at $2.35 per month per kilowatt of billing demand. In 1983 the discount was reduced to $2.00 per month with the intention that it would be further reduced to zero over the following few years. All customers affected by this proposal were sent a letter explaining the proposed phase out of the discount. The letter was dated 1982 09 08.

The Churches and Schools Discount does not apply to Churches and schools in Rate # 2.3 (110 - 1000 KVA) and the Rate # 2.4 (over 1000 KVA.

An analysis of the proposed reduction in discount shows that the total impact of the $0.90 per kilowatt reduction is $122,311 or a 5.55% average increase in costs per year for the 28 School Boards and 322 schools in the Rate # 2.2 class.

Mr. Goodridge requested the Board to consider either delaying the phase out of the discount or reducing its impact.

Ms. Myles argued that NLP's rational for gradually eliminating the discount is that it is inequitable to offer it to one group of customers and not other groups. In effect, elimination of the discount reduced the form of subsidy paid on behalf of this group by other customers, and NLP maintains that the eventual elimination of the discount planned for its next rate application is appropriate.

Mr. Harris stated he fails to see any great difference from the situation that the school Boards face than that faced by all consumers and particularly those on fixed incomes. It is the position of CAC that the Board should allow NLP to continue to decrease the amount of the discount. This is a gradual process that has been well known by these organizations over the past number of years. CAC supports the objective and the process.

We agree that NLP should continue its reduction of the discount for the Churches and Schools in the Rate # 2.2 class as proposed. The discount of $1.00 should be phased out equally over the next two rate hearings on NLP's own behalf.

RULES AND REGULATIONS

NLP is proposing at this time that eight Regulations, the Rate Stabilization Clause and the Municipal Tax Clause be modified. In addition, NLP is proposing that two new Regulations be added.

Regulation 5(a) has been modified to exclude the availability of three phase, 4 wire, 120/240 delta secondary voltage as a standard voltage.

Regulation 6(c) has been modified to enable customers to obtain street and area lighting when the requirement is seasonal or temporary in nature.

Regulation 8(a) has been modified so that cottage areas will have their meters read four timers per year and the readings estimated for all other months. This has been included in an effort to decrease the operating costs for serving cottage areas, which typically have very low energy consumption especially during the winter months.

Regulation 9(c) has been modified to reflect the credit received by the customer when betterments are involved. When existing distribution facilities are salvaged and replaced with new facilities of the same standard, at the same or a new location specified by the customer shall share the costs. NLP's share of the costs is defined as the betterment and shall be determined by the additional life it shall get from any asset involved.

Regulation 9(f) has been modified to reflect the current operating cost of NLP in performing reconnections.

Regulation 9(h) and 9(i) have been modified to stop the monthly charging of light fixtures when the fixtures have been negligently damaged, as the customer has little control over vandalism. When NLP becomes aware of vandalism, NLP shall send a letter to the customer notifying him of the damage, and advising him that NLP will remove the fixture, the monthly rental charges will cease, and the fixture will not be replaced unless the customer agrees to pay the repair costs in advance and all future repair costs. The customer has thirty days from the date of the letter to contact NLP and agree to pay the indicated costs. To protect against customers who may intentionally damage light figures in order to avoid making their monthly payments, if the customer does not contact NLP within the thirty days as previously mentioned, the customer will be charged the unrecovered capital cost of the poles and/or the underground wiring, plus the cost of removal, less any salvage value.

Regulation 10(d) has been modified to reflect the current cost to NLP when dealing with NSF cheques from customers.

Regulation 13 (g) has been added to allow NLP to trim trees in close proximity to service lines so that NLP can maintain these lines in a safe manner.

Regulation 13(h) has been added to make customers more aware of NLP's easement rights and thereby reduce encroachments.

The Rate Stabilization Clause has several modifications. Sections 11.1 (ii) and (iii), have been modified to remove the actual rate from the fuel calculations and the firmed-up secondary energy calculation and have replaced it with a predefined variable. Section 11.2, has been modified to change the January 1st date to December 31st, as the original intent was for the RSA to be adjusted at year end. Section 11.4, has been deleted as it is no longer necessary.

COSTS

Leave will be granted to CAC to file with the Board a detailed statement of its claim for costs and the amount of the claim as approved by the Board, will be paid by NLP.

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

IT IS THEREFORE ORDERED THAT:

1. The calendar year 1990 be used as the test year for the purpose of this application.

2. NLP's average rate base for the year ended December 31, 1987, be and it is hereby fixed at $315,679,000 and for the year ended December 31, 1988 at $337,802,000.

3. NLP's estimated average rate base for the year ending December 31, 1989, be and it is hereby fixed at $365,303,000 and for the year ending December 31, 1990, at $401,368,000.

4. A just and reasonable return for NLP is determined to be between 11.58% and 11.95% on its average rate base for 1990.

5. NLP's accounting changes for extraordinary repairs, interest on overdue accounts and foreign exchange losses be implemented.

6. At the next rate hearing on its own behalf or not later than February 1, 1991, NLP shall submit a full report on the activities and accomplishments of the Corporate Planning and Consumer Relations Division.

7. At the next rate hearing on its own behalf or not later than February 1, 1991, NLP shall submit detailed information on the condition and suitability of its computer system, what is necessary to upgrade it to meet the requirements of its customers, what these requirements are and the relationship between the costs and the benefits.

8. At the next rate hearing on its own behalf or not later than February 1, 1991., NLP shall report on the progress made in developing Demand Side Management options.

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

10. The first block of kilowatt hours in Rates # 1.1, # 2.1 and #3.0 proposed by NLP shall not be implemented, rather the basic customer charge shall be increased so that revenue from basic customer charge shall reflect and more closely track costs.

11. The remaining discount of $1.00 for the Churches and Schools in Rate # 2.2 shall be phased out equally over the next two rate hearings. on NLP's own behalf.

12. The rates, tolls and charges attached to the Order as Appendix "A" be approved to be effective for service provided on and after February 1, 1990.

13. The revisions to the Rules and Regulations attached to the Order as Appendix "B" be approved effective February 1, 1990.

14. NLP shall pay the expenses of the Board arising out of this hearing.

15. CAC be and it is hereby granted leave to submit a detailed statement of its costs as a party to this application.

Dated at St. John's, Newfoundland, this 30th day of January, 1990.

J.A.G. Macdonald, P.Eng., Chairman
R. E. Good, Vice-Chairman
G. F. Lawrence, Commissioner
T. E. Williams, Commissioner