



*Newfoundland  
& Labrador*

BOARD OF COMMISSIONERS OF PUBLIC UTILITIES

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**IN THE MATTER OF AN APPLICATION BY  
NEWFOUNDLAND & LABRADOR HYDRO  
FOR A  
GENERAL RATE REVIEW**

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**DECISION AND ORDER  
OF THE BOARD**

**ORDER No. P.U. 7 (2002-2003)  
JUNE 7, 2002**

---

**BEFORE:**

**Mr. Robert Noseworthy  
Chair and Chief Executive Officer**

**Ms. Darlene Whalen, P.Eng.  
Vice-Chair**

**Mr. Don Powell, C.A.  
Commissioner**

**Mr. G. Fred Saunders  
Commissioner**



NEWFOUNDLAND AND LABRADOR

AN ORDER OF THE BOARD OF COMMISSIONERS OF PUBLIC UTILITIES

NO.     P.U. 7 (2002-2003)    

**IN THE MATTER OF** the Electrical Power Control Act, SN 1994, c. E-5.1 (“*EPCA*”) and the Public Utilities Act RSN, 1990, c. P-47 (“the *Act*”) and their subordinate regulations,

**AND IN THE MATTER OF** an Application by Newfoundland and Labrador Hydro (NLH) for approval of: (1) Under Section 70 of the *Act*, changes in the rates to be charged for the supply of power and energy to its Retail Customer, Newfoundland Power, its Rural Customers and its Industrial Customers; (2) Under Section 71 of the *Act*, its Rules and Regulations applicable to the supply of electricity to its Rural Customers; (3) Under Section 71 of the *Act*, the contracts setting out the terms and conditions applicable to the supply of electricity to its Industrial Customers; and (4) Under Section 41 of the *Act*, its 2002 Capital Budget.

**BEFORE:**                    **Robert Noseworthy**  
                                    **Chair and Chief Executive Officer**

**Darlene Whalen, P.Eng.**  
**Vice-Chair**

**Don Powell, C.A.**  
**Commissioner**

**G. Fred Saunders**  
**Commissioner**

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## **PART ONE. BACKGROUND**

### **I. THE APPLICATION**

#### **1. Pre-Application Events**

On November 19, 1999 NLH applied to the Board of Commissioners of Public Utilities (“the Board”) to reduce rates charged the Island industrial customers (Abitibi Consolidated Inc., Stephenville and Grand Falls Divisions; Corner Brook Pulp and Paper Company Ltd.; and North Atlantic Refinery Limited) to comply with changes in the *EPCA* which required that, as of December 31, 1999, the Island industrial customers no longer subsidize the rural deficit. As NLH had not completed a full Cost of Service (COS) study since 1994, the Board, in Order No. P.U. 23 (1999-2000), ordered NLH to, among other things, update this study so that the Board could assess the impact on other customers of the proposed changes in rates to the Island industrial customers.

On June 30, 2000 when NLH submitted its updated 1999 COS study, the Board decided there were several issues requiring a public hearing.

On September 13, 2000 the Board published notice of a pre-hearing conference to be held on October 11, 2000. The participants at the pre-hearing conference, including NLH, the Island Industrial Customers (IC), and Newfoundland Power Inc. (NP), agreed that the rates for the IC could not be set based solely on the updated COS study and that these rates could not be finalized in isolation of the rates charged to other customers of NLH.

During the pre-hearing conference, NLH advised the Board that it planned to submit an application for a general rate review in the spring of 2001. On October 27, 2000 the Board issued Order No. P.U. 25 (2000-2001) extending interim rates for the IC to December 31, 2001 and requiring NLH to file a general rate application by May 1, 2001. At the request of NLH, the Board subsequently extended the filing date for the Application to May 31, 2001.

#### **2. NLH Application**

Pursuant to the Order of the Board, on May 31, 2001 NLH filed this Application for a general rate review. As shown in Appendix A, the Application began the first comprehensive review of NLH since it became fully regulated in 1996. In the Application NLH is proposing the following:

- (1) *“that the rate charged NP be increased, as of January 1, 2002 to 48.0 mills/kWh;*
- (2) *that the existing policy be continued of allowing the Applicant, as NP changes its rates, to automatically adjust the rates which it charges its Island Rural Interconnected Customers, its customers served from the L’Anse au Loup System, and its Isolated Rural Customers, other than Government Departments and Agencies, for the first 700 kWh per month of consumption, so that such rates are the same as the rates charged by NP to its customers;*

- (3) *that the existing policy be continued of allowing the Applicant to change the rates charged for consumption over 700 kWh per month of electricity sold to Isolated Rural Customers, other than Government Departments and Agencies, by the average rate of change (i.e. increase or decrease) granted to NP from time to time;*
- (4) *that the “preferential rates” policies which traditionally have been made available to certain Rural Customers (fish plants and selected other organizations) be continued for the present;*
- (5) *that the rate classifications for Labrador Interconnected Customers be changed so that all customers served from that grid are subject to a common rate classification and that the rates charged as of January 1, 2002, to customers served from the Labrador Interconnected System be as set out in Schedule A, pp. 13-27...;*
- (6) *that the rates charged as of January 1, 2002 to Industrial Customers for firm service be a demand charge of \$7.01 per kW per month, an energy charge of 23.09 mills/kWh and the relevant annual specifically assigned charges;*
- (7) *that the purchase price of No. 6 Fuel oil used for the purposes of the RSP be changed from the current \$12.50 per barrel to \$20 per barrel, with effect from January 1, 2002;*
- (8) *that the RSP cap for NP be increased to \$100 million;*
- (9) *that the following financial targets based on current market conditions be set by the Board as appropriate;*  
*long term:*  
*Return on Equity (ROE) - 11% to 11.5%*  
*Debt/Equity Ratio - 60:40*  
*Return on Rate Base - 9.5%*
- (10) *that the estimated 2002 average rate base be \$1,370,471,000;*
- (11) *that the just and reasonable rate of return for the Applicant on the established average rate base for 2002 be 7.4%;*
- (12) *an accounting treatment for the net salvage value of assets and certain changes in the service lives of certain assets as described in the evidence filed in support of this Application;*
- (13) *amendments to its Rules and Regulations which govern the provision of service to its Rural Customers; and*
- (14) *to seek the approval of the Board for contracts with its Industrial Customers.*

Subsequent to filing the original Application, NLH filed three revisions. On October 3, 2001 and again on October 31, 2001, based on updated COS studies, NLH revised the Application amending previously proposed rates. On December 20, 2001 NLH filed revised IC contracts for the approval of the Board.



Effectively the rate increase sought by NLH in this Application, along with the 2002 RSP adjustments, will result in an overall rate increase to NP customers of 7.3% and to the IC of 16.1%, both effective January 1, 2002. NLH is also requesting that the Board continue the existing policy on rural rates which means that Rural Interconnected customers on the Island will pay the same rates as NP customers, and that Rural Isolated customers will pay those same rates for the first 700 kWh of energy consumed. NLH is also requesting that more uniform Labrador Interconnected system rates be set for the first time.

### **3. Further Applications**

Because of the length of the hearing and the likelihood that a decision would not be finalized before January 1, 2002 NLH filed an application on November 20, 2001 seeking an Order approving certain 2002 capital projects as well as extending the interim rates charged to the IC until the final Order was issued. On December 20, 2001 the Board issued Order No. P.U. 30 (2001-2002) approving the capital projects that were not objected to by the parties and extending IC's interim rates as requested. (See Appendix G and Appendix H)

On December 28, 2001 NLH applied to the Board seeking approval of selected projects under \$50,000 and annual leases in excess of \$5,000. On January 14, 2002 the Board issued Order No. P.U. 31 (2001-2002) approving capital expenditures totalling \$731,000 involving projects under \$50,000 to which no party objected and the annual leases as requested. (See Appendix I and Appendix J)

## II. THE HEARING

### 1. The Board

Members of the Board of Commissioners of Public Utilities who heard the Application were:

Chairperson Robert Noseworthy, (Chair and Chief Executive Officer);  
 Commissioner Darlene Whalen, (Vice-Chair);  
 Commissioner Don Powell; and  
 Commissioner Fred Saunders.

### 2. Pre-hearing Conference

Beginning June 18, 2001 notices of a pre-hearing conference were published in various newspapers throughout the Province to establish the process and timing of the hearing. The pre-hearing conference was held on July 5, 2001. On July 11, 2001 the Board issued Procedural Order No. P.U. 7 (2001-2002) (See Appendix B) which identified registered intervenors, set procedural rules for the conduct of the hearing and set the schedule for the filing and service of documents, the motions days and the actual hearing. The location and dates were also set for public participation days which afforded interested individuals and organizations the opportunity to express their views on the Application.

NLH was represented throughout the hearing by Ms. Maureen Greene, Q.C., and Mr. Geoffrey P. Young, LL.B.

The registered intervenors for the hearing were:

Represented by:

Newfoundland Power Inc. (NP)	Ms. Gillian Butler, Q.C. and Mr. Peter Alteen LL.B.
Industrial Customers (IC) (Abitibi Consolidated Inc., Stephenville and Grand Falls Divisions; Corner Brook Pulp and Paper Company Ltd.; and North Atlantic Refinery Limited)	Ms. Janet M. Henley Andrews, Q.C. and Mr. Joseph S. Hutchings, Q.C.
Government Appointed Consumer Advocate, Mr. Dennis Browne, Q.C., (CA)	Mr. Stephen Fitzgerald, LL.B.

The Towns of Labrador  
City and Wabush (LC/W)

Mr. Edward M. Hearn, Q.C.

The Town of Happy Valley-  
Goose Bay

Mr. Dennis Peck,  
Director of Economic Development

The hearing was scheduled to begin at 9:30 a.m. on Monday, September 24, 2001 in the Board's Hearing Room located at Prince Charles Building, 120 Torbay Road in St. John's.

On December 17, 2001 Mr. Martin Lockyer, LL.B., counsel for CFB Goose Bay (5 Wing) applied to the Board for intervenor status. Following agreement by other parties the Board recognized CFB Goose Bay (5 Wing) as a registered intervenor and gave leave for them to make a presentation during final submissions.

The Board was assisted by:

Mr. Mark Kennedy, LL.B., Counsel for the Board  
Ms. G. Cheryl Blundon, Board Secretary  
Ms. Barbara Thistle, Assistant Board Secretary

### **3. Motions**

On July 18, 2001 the Board held its first motions day where outstanding issues were addressed, including the hearing procedures and schedule, the role of Board staff, and the naming of expert witnesses. As part of its Notice of Intervention, pursuant to Section 90 (1) of the *Act*, the IC applied for an Order of the Board setting out in advance of the hearing that they were entitled to their taxed costs. On July 20, 2001 the Board issued Procedural Order No. P.U. 8 (2001-2002) ordering that the issue of costs for the IC and other intervenors will be considered by the Board at the conclusion of the hearing. (See Appendix C)

The second motions day was held on August 29, 2001. The Board issued Procedural Order No. P.U.18 (2001-2002) on September 7, 2001 amending the earlier Procedural Order and setting a final schedule regarding public participation days. (See Appendix D)

Further motions were filed with the Board on September 17, 2001 and September 24, 2001. As a result of these motions, the Board issued Procedural Order No. P.U. 22 (2001-2002), and Procedural Order No. P.U. 23 (2001-2002). These Orders were intended to further clarify the hearing process and resulted in minor amendments to Procedural Orders No. P.U. 7 (2001-2002) and P.U. 18 (2001-2002). (See Appendix E and Appendix F)

### **4. Information Management**

This Application represented a challenge for the Board in terms of information management. The quantity of evidence and related documentation made it imperative that an effective system be implemented to manage the information. With the agreement of the parties,

the Board ordered that all hearing generated documentation be filed in an electronic format, with one paper copy filed as the official Board record.

Once the documents were made available in electronic format, the Board was able to provide public access to this information through the Board's website ([www.pub.nf.ca](http://www.pub.nf.ca)). The website was updated daily with transcripts and additional evidence filed during each day's proceedings posted to the website in advance of the commencement of the hearing the following day. Having the information in electronic format also allowed the Board and parties to view the documents simultaneously on monitors located in the hearing room. The use of this technology was groundbreaking for the Board and resulted in substantial savings of both time and paper. The Board is grateful to Mr. Terry O'Reilly of NLH and Mr. Mike McNiven of the Board for their technical support throughout the hearing and to all the parties for their co-operation in the use of this technology.

## **5. Notice of Hearing**

Beginning September 4, 2001 public notice of the hearing scheduled for September 24, 2001 was published in newspapers throughout the Province. This notice also invited interested persons and organizations to express their views on the Application, either during public participation days which were scheduled at various locations throughout the Province or by submitting a Letter of Comment.

## **6. Evidence**

### **Pre-filed Evidence**

Prior to the start of the hearing NLH and the intervenors were required to file their evidence with the Board. This pre-filed evidence was circulated and posted on the Board's website in advance of the hearing.

As part of its Application NLH filed proposed Rate Schedules, Rules and Regulations, Industrial Contracts and details of its 2002 Capital Budget. On July 12, 2001 NLH submitted the pre-filed testimony of its witnesses, which was updated and revised throughout the hearing. On August 15, 2001 the intervenors filed their evidence and questions arising from this evidence were filed on August 27, 2001.

After receipt and distribution of pre-filed evidence, the parties exchanged information requests in accordance with the regulations under the *Act*. The information requests and responses were filed with the Board and formed a part of the evidence in the hearing. More than 1000 Information Requests and responses were filed throughout the hearing process. These information requests and the responses to them are referenced in this decision in numerical order based on the party who made the request. For example the first information request from NP is referenced as NP-1.

### **Evidence During the Hearing**

The hearing began as scheduled on September 24, 2001 and continued over a nineteen week period, for 61 hearing days. During the hearing there were 21 witnesses called by the parties along with additional filings consisting of 50 exhibits, 13 consent-exhibits, 24 information items and 42 undertakings. During public participation days there were 34 public presentations in 6 communities. The proceeding produced in total 1425 electronically filed documents, 20,000 pages of evidence and approximately 2,200 pages of daily transcripts.

Each of the parties was represented and called witnesses throughout the hearing, with the exception of the Town of Happy Valley-Goose Bay who made a presentation at the time the Board visited the town to hear public presentations. Witnesses were sworn, and after adopting their pre-filed testimony and speaking to amendments, each was subject to cross-examination by the other parties.

#### Witnesses called by NLH:

Mr. William Wells	President, NLH
Mr. Dave Reeves	Vice-President, Transmission Rural Operations, NLH
Mr. Robert Henderson	Manager, Systems & Operations, NLH
Mr. Hubert Budgell	Director of System Planning, NLH
Mr. John C. Roberts	Corporate Controller, NLH
Mr. Derek Osmond	Vice-President and Chief Financial Officer, NLH
Ms. Kathleen McShane	Senior Consultant & VP, Foster Associates, Bethesda, Maryland
Mr. Douglas Hall	Managing Director, Global Banking, RBC Dominion Securities
Mr. John A. Brickhill	President & CEO, Foster Associates, Bethesda, Maryland

#### Witnesses called by NP:

Mr. John T. Browne	John T Browne Consulting, Toronto, Ontario
Mr. Larry B. Brockman	Managing Consultant, PA Consulting Group, Cambridge, Massachusetts

#### Witnesses called by the IC:

Mr. Michael J. Vilbert	Principal, The Brattle Group, Cambridge, Massachusetts
Mr. Cameron F. Osler	Inter-Group Consultants Ltd., Winnipeg, Manitoba
Mr. Mel Dean	Coordinator, Strategic Services, Abitibi-Consolidated Inc. Stephenville, NF
Mr. Jay Backus	General Manager, Abitibi-Consolidated Inc. Stephenville, NF
Mr. Glenn Mifflin	VP & Chief Financial Officer, North Atlantic Refinery Ltd., Come-by-Chance, NF

Witnesses called by the CA:

Dr. Basil Kalymon	Professor of Finance, Richard Ivey School of Business, University of Western Ontario
Mr. Douglas C. Bowman	Manager, Performance Assessment & Strategy Services, EMA Consulting, Fairfax Virginia

Witness called by LC/W:

Mr. Mark Drazen	Consultant, Drazen Consulting Group, Calgary, Alberta
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Witnesses called by Counsel to the Board:

Dr. John W. Wilson	President, Wilson & Associates, Arlington, Virginia
Mr. William R. Brushett, C.A.	Partner, Grant Thornton LLP, (GT) St. John's, NF (Board's Financial Consultant)

Public participation days were held in St. Anthony, Labrador West, Happy Valley-Goose Bay, Stephenville, Grand Falls-Windsor and St. John's. During this phase of the hearing interested persons and organizations were offered the opportunity to present to the Board, NLH and the intervenors their views on issues arising from the Application. These comments were provided under oath and formed part of the evidentiary record of the hearing.

The Board heard from the following persons:

St. Anthony, on October 15, 2001:

Mr. Trevor Taylor, MHA, District of the Straights-White Bay North  
Mr. Ernest Simms, Mayor, Town of St. Anthony  
Mr. Dean Coates, Plant Manager, St. Anthony Seafoods

Labrador West, on October 16, 2001:

Mr. Jim Farrell, Mayor, Town of Wabush  
Mr. Graham Letto, Mayor, Town of Labrador City  
Mr. George Kean, President, Steelworkers Union, Iron Ore Company of Canada  
Mr. Randy Collins, MHA, District of Labrador West  
Mr. Ern Condon, Private Citizen, Town of Labrador City  
Mr. Ron McClatchie, President, Labrador West, Chamber of Commerce

Happy Valley-Goose Bay, on October 18, 2001:

Mr. Wally Anderson, MHA, District of Torngat Mountains  
 Mr. Stanley Oliver, Executive Assistant to Hon. Ernest McLean, MHA,  
     District of Lake Melville  
 Mr. Dennis Peck, Director of Economic Development,  
     Town of Happy Valley-Goose Bay  
 Mr. Richard Rich, Mayor, Town of Rigolet  
 Mr. Glen Sheppard, Mayor, Town of Postville  
 Mr. Shawn Boland, Councillor, Town of Hopedale  
 Mrs. Ruth Flowers, Councillor, Town of Makkovik  
 Mr. Henry Broomfield, Deputy Mayor, Town of Nain

Happy Valley-Goose Bay, on October 19, 2001:

Colonel Paul McCabe, Commander of CFB Goose Bay (5 Wing)  
 Mrs. Yvonne Jones, MHA, District of Cartwright-L'Anse au Clair  
 Mrs. Betty Samson, Town Clerk, Town of Port Hope Simpson  
 Mr. Nat Moores, Mayor, Town of L'Anse au Clair, and Treasurer,  
     Coastal Communities and Combined Councils of Labrador  
 Mrs. Annie Rumbolt, Mayor, Town of St. Lewis  
 Mrs. Melita Paul, Town Manager, Town of Charlottown  
 Mr. Ford Rumbolt, Deputy Mayor, Town of Mary's Harbour  
 Ms. Roxanne Notley, Strategic Opportunities Officer,  
     Southeastern Aurora Development Corporation

Stephenville, on October 22, 2001:

Mr. Gerry Murphy, Vice-President, Bay St. George Chamber of Commerce  
 Mr. Mel Moores, Local 1093-Communications,  
     Energy and Paper Workers Union of Canada  
 Mr. Cecil Stein, Mayor, Town of Stephenville  
 Mr. Tom Hutchings, Executive Director,  
     Long Range Regional Economic Development Board

Grand Falls-Windsor, on October 23, 2001:

Mr. Walwin Blackmore, Mayor, Town of Grand Falls-Windsor  
 Mr. Dave Barker, Private Citizen, Grand Falls

St. John's, on October 26, 2001:

Mr. Bruce Pearce, Climate Change Action Coordinator, Conservation Corps  
of Newfoundland and Labrador  
Ms. Sara Peckford, Eco-team Program Director, Conservation Corps  
of Newfoundland and Labrador  
Ms. Barbara Mullaly-Pauly, Chief of Housing Programs, Office of Energy Efficiency,  
Natural Resources Canada

The Board appreciates the efforts of people who took the time to appear and present their views on the Application. The presentations and the comments were candid and very helpful in providing the Board with both personal and community perspectives on the Application. Copies of the transcripts for the public participation days are available on the Board's website ([www.pub.nf.ca](http://www.pub.nf.ca)) or from the Board office.

During the hearing, interested persons and organizations were afforded the opportunity to submit a Letter of Comment, which also formed part of the record before the Board. Letters of Comment were submitted by:

Rev. Clarence R. Sellars, Executive Secretary, The United Church of Canada  
Newfoundland and Labrador Conference, St. John's, NF  
Mr. Andy Wells, Mayor, City of St. John's  
Mr. Ron Smith, Mayor, Town of Conception Bay South  
Mr. Dave Porter, Vice President Human Resources,  
Iron Ore Company of Canada, Labrador City  
Mr. John F. Peddle, Executive Director,  
Newfoundland and Labrador Health Boards Association  
Mr. Lawrence O'Brien, M.P., Labrador  
Mr. Bob Clarke, Business Manager, I.B.E.W., Local 1615

The Board also extends its appreciation to those persons and organizations submitting Letters of Comment.

## **7. Final Submissions**

Written argument was submitted by NLH and the registered intervenors (NP, IC, CA, LC/W) on January 21, 2002. Final oral submissions were presented on January 28 and 29, 2002. In addition, CFB Goose Bay (5 Wing) made a presentation during final oral submissions.



### **III. PRELIMINARY MATTERS**

#### **1. Perspective**

To ensure a sound understanding of the context in which this decision was written the Board sets out the following perspective. The first section addresses the historical context and sets out the development of NLH and its regulation by the Board. The second part describes the current industry structure.

##### **i) Historical**

#### **EARLY HISTORY**

##### **Limited Electrification - Pre-Confederation**

Newfoundland and Labrador is a sparsely populated, resource rich province, the Island portion of which is isolated from the North American electrical power grid. From the first supply of power in 1895, electricity has been supplied by the independent action of separate utilities established relatively close to the load centers they were serving. Although the Government of the day supplied some financial assistance to enable the provision of electricity to rural areas, for the most part investment in electrification was left in the hands of private investors. Extensions to existing systems were made only as these investments became attractive. There were no major interconnections between systems, the transmission lines were relatively short and service standards varied. The large number of independently operating utilities resulted in little coordinated planning or standardization of rates or services.

##### **Public Utilities Commission – 1929**

In 1929, the Government created a Public Utilities Commission which was intended to assist with establishing consistency of electrical rates and services. The Commission did not have full authority to set rates or direct services as it was limited to investigating matters referred to it by the Government of the day. In 1933 the Commission was granted authority to set rates to be charged by a utility following a referral from Government.

##### **Public Utilities Board - 1949**

One of the first acts of the Government as a province of Canada was to establish, in 1949, a Board of Commissioners of Public Utilities, which had full authority to regulate public utilities in the province. Unlike the earlier Commission, the Board had general authority to supervise utilities in the province. Utilities were required to apply to the Board for approval of rates, except in areas where electricity service was highly subsidized by Government. In this latter case, Government reserved the right to establish rates. The regulatory structure established in 1949 was not unlike that which exists today. The Newfoundland Court of Appeal, in 1983 succinctly set out the purpose of the Board in T.A.S. Communication Systems Ltd. V. Newfoundland Telephone Co. (1983). Mr. Justice Gushue, said at para 44, NFLD. & P.E.I. R. 114.

*“The PUA, as with similar statutes in all other Canadian jurisdictions, was enacted for the purpose of controlling and regulating companies providing essential services such as electrical power, water supply and sewage disposal and communication facilities in order to ensure that those services are properly and fairly provided to the public, and that the charges for such services are fair and reasonable. Services of this nature are normally supplied by one company only in any given geographical area and the Act, while guaranteeing the utility company a “just and reasonable return” on its investment (Section 77), also provides a control procedure to ensure that the rates charged are always fair and equitable and that, in effect, the utility company’s profits are not more than just and reasonable. The Act is administered by the Board.”*

## **PROVINCIAL GOVERNMENT INVOLVEMENT - 1954 to 1964**

### **Newfoundland Power Commission - 1954**

The first entry of the Government of Newfoundland and Labrador into an active role in planning the province's electric power system came with the creation of the Newfoundland Power Commission (NPC). Its mandate was to investigate existing and potential capacity for the generation of electricity, make recommendations to the Lieutenant-Governor in Council, and, where directed, participate in the supply of electricity. While its charge was broad, NPC was directed to focus on a rural electrification program to be financed by the provincial Government. As such the Board did not regulate the NPC.

In its formative years the NPC worked closely with the existing regulated utilities in financially supporting the expansion of their facilities to reach nearby rural customers. Initially, Government financed and owned new rural distribution lines including replacements and additions. The utilities supplying power agreed to operate and maintain these distribution lines. In cooperation with the Department of Municipal Affairs, the NPC also constructed diesel generating plants and distribution lines to other rural communities, municipalities generally operated these diesel installations, while Government paid the costs in excess of revenues. Government involvement helped but it soon became apparent that substantial progress in rural electrification would require the infusion of much larger amounts of capital. Studies of the Island's individual power systems indicated looming generation shortages and a need to interconnect these systems with a high voltage transmission network.

### **Power Distribution Districts - 1963**

In June 1963, the Government introduced the concept of Power Distribution Districts (PDD), which would manage the supply of electricity to rural areas not serviced previously. PDDs were given the power to borrow the funds necessary for the construction and supervision of electric systems. The stated objective of the Government was to ensure that every community in the province with fifteen or more families would have reasonable access to electricity. As the PDDs were policy instruments, not involved in selling electricity directly or indirectly to the public, the Board exercised no regulatory control.

## **MAJOR ELECTRIFICATION PROGRAMS - 1965 to 1975**

By the mid-1960s the lack of generation capacity and the absence of an Island transmission grid were stagnating economic expansion and limiting the standard of living in the Province. To address this issue the Government decided to proceed with two major electrification programs which had been identified by the NPC. These programs involved both an accelerated, province-wide, rural electrification and also a major expansion of the Island's generation and transmission capacity. The financing of these two programs would come from a mixture of federal, provincial and private sources, and required a major redefinition of the NPC. To satisfy the conditions of financing, the Government would have to separate the uneconomical rural supply from the rest of the system.

### **Rural Electricity Authority - 1965**

In April 1965, the Government established the Newfoundland and Labrador Rural Electricity Authority (REA), which was charged with designing, constructing and operating diesel generating plants and line extensions that would not be economically feasible for private industry to undertake. Similar to the original NPC, the REA's principal role was to make recommendations to the Government as to the improvement and expansion of the supply of power to rural areas. Under that mandate the REA accelerated the rural electrification plan first initiated by NPC. All assets and liabilities of NPC were transferred to REA, which then both owned and operated the PDD systems. It was recognized that the resulting operation would have to be heavily subsidized by the Government and, as a consequence, rural electricity rates would continue to be set without regulation of the Board.

For the next decade a clear distinction existed between the rural electrification program under the REA's mandate and the Island power development project. By the early 1970s the program of electrifying all communities with 15 families or more was complete and efforts became more focused on operations rather than capital expansion. The REA initiated a program to transfer the PDD assets to existing utilities. In order to reduce administrative overhead, more than fifty PDD's operating in the province were consolidated by the end of 1971 into a single PDD.

### **Newfoundland and Labrador Power Commission - 1965**

At the same time the REA was created, the Government, to address the growing need in the province for additional electrical energy, reconstituted the NPC as a corporation to be known as the Newfoundland and Labrador Power Commission (NLPC). It had authority to "*establish, construct, maintain and operate works in any part of the province for the development and generation of power and may transmit and sell anywhere in the province all power generated thereat*". As was the case with the NPC, the legislation confirmed that the NLPC was not subject to regulation by the Board.

The NLPC immediately busied itself with the negotiation of power contracts to support the financing and construction of on Island hydro-electric and thermal generating stations, a high voltage transmission grid and the conversion of the power system to the North American

frequency standard of 60 Hertz. In 1965 the NLPC purchased the water rights on the south coast of the Island to begin developing the Bay d'Espoir reservoir area. Construction of this major hydroelectric station and high voltage transmission network was completed within three years. It was followed by the construction of the Holyrood thermal generating station and the development of several other hydroelectric sites. During the same time negotiations were being finalized to develop the potential of the Churchill River in Labrador. By 1972 the first energy from that large scale undertaking was flowing into the North American market.

The development of these projects, which resulted in energy being provided to retailers at uniform rates, encouraged the consolidation of the retailers and uniformity of rates to consumers. In 1966, several of the island utilities were amalgamated under the name of Newfoundland Light and Power Co. Ltd (a predecessor to NP which, for convenience is also referred to as NP). At the time of amalgamation there were 77 different rates charged in the areas that they served. By 1968 NP had introduced a uniform schedule of rates, becoming the first electrical utility in Canada to do so. This new schedule ensured that all customers in the company's service area receiving the same type of service paid the same rate.

In the next few years the Government established several policies which discouraged rate differentials throughout the province. In 1974 the Government declared that rates for service to fish plants served by PDD were to be continued at current levels. This was followed in 1975 with an order that rates charged by PDD for its connected domestic customers would be adjusted to conform to those rates approved for NP. At the same time Government established the "*lifeline block*" which required that PDD domestic customers supplied from isolated diesel powered plants be charged the same rate as was charged to NP customers for the first 500 kWh consumed per month. The lifeline block was increased in April 1987 to 600 kWh per month, and in July 1989 to 700 kWh per month.

#### **Newfoundland and Labrador Power Corporation - 1974**

In the mid 1970s, with both the Labrador and Island projects completed and on stream, the Government turned its attention to a much larger project - developing the Gull Island and Muskrat Falls sites on the Lower Churchill River in Labrador and linking the Labrador and Island transmission networks. To prepare for this the Government gave NLPC much broader powers than it previously held and renamed the NLPC as the Newfoundland and Labrador Power Corporation (NLPCorp).

#### **GOVERNMENT MOVES AWAY FROM PARTICIPATING IN SUPPLY - 1975**

By 1975 the Government had, through the REA and NLPC, substantially accomplished its goal of electrifying the province and ensuring supply to meet its growing power needs. Government next decided it was time to consolidate these interests in one corporation. Over time legislation was passed which gradually reduced and eventually phased out the REA and the PDD.

### **Newfoundland and Labrador Hydro-Electric Corporation - 1975**

In 1975 NLPCorp was renamed the Newfoundland and Labrador Hydro Electric Corporation (NLH). The Government transferred to NLH all of the assets and obligations of NLPCorp., and REA. This transfer brought all of Government's interests in the supply of power under the umbrella of one corporation, the shares of which were owned by Government. The authority of NLH was expanded to include the efficient supply of power both inside and outside the province.

Even after the creation of NLH, the REA and PDD continued to exist as separate entities. NLH operated supply to retail customers, PDD continued to operate rural supply and the REA was the mechanism by which funds were transferred from the Consolidated Revenue Fund to PDD in order to provide grants for capital construction and operating subsidies. By 1978 the Government decided that funding could be provided directly to the PDD, and the REA was abolished. The PDD and the REA had facilitated the consolidation of virtually all the isolated rural systems, many of which would not have been developed in the first instance without this structure and Government financial support.

While NLH was not subject by statute to the regulation of the Board, the Government began to believe that some oversight might be advisable. When NLH proposed a rate increase to NP in 1976, the Government directed NLH to appear before the Board to defend the proposed rate increase. In support of this direction, the Government enacted legislation to establish a regulatory framework for NLH.

### **Regulatory Framework for NLH - 1977**

In June 1977 the Government introduced legislation known as the *Electric Power Control Act*, S.N. 1977, c. 92 (*EPCA, 1977*), which required that the rates charged by NLH to retail customers be reviewed by the Board. Rates charged to industrial customers continued to be determined by contracts entered into and approved by NLH's Board of Directors without review by the Board. The *EPCA, 1977* set out the power policy of the province as ensuring that rates were fair to consumers while providing an adequate return to suppliers.

With the enactment of the *EPCA, 1977* the Board began to review some aspects of the business of NLH. While the Board reviewed the retail rates set by NLH, the Government maintained the right to set the rates after considering the recommendations of the Board. The recommendations of the Board in the first six reviews of NLH's rates were accepted by Government without alteration.

As part of its movement away from involvement in supplying power, the Government made several legislative amendments in the late 1980's. In 1989 the Government eliminated the PDD and vested all of its assets and liabilities in NLH. At the time the Government was paying an annual subsidy of about thirty million dollars for the PDD to operate the rural system. The payment of the rural subsidy by Government was gradually phased out so that, by 1992, the entire subsidy was passed on directly to all consumers of electricity in the province. At the same

time, Government introduced an annual guarantee fee of one percent on the total outstanding long-term debt which was guaranteed by Government.

In 1992 NLH filed an application with the Board dealing with proposed electricity rates to rural customers. Hearings on the application were held and the Board submitted recommendations which, among others, included the gradual reduction of the rural subsidy and the elimination of preferential rural rates. Government declined to implement these recommendations and directed the Board to investigate issues surrounding the supply of electricity in isolated rural areas and report to the Minister of Natural Resources. This inquiry was conducted in 1995.

Upon submission of the Board's Report, the Minister questioned why recommendations did not recognize traditional Government policy respecting a uniform electricity rate throughout the Province, at least for some minimum level of consumption. The Minister also observed the Report did not acknowledge Government's policy of having rural rates cross-subsidized by all NLH ratepayers, as explicitly provided for in the *EPCA*, 1977. Finally, the Minister felt the Report did not reflect Government's intended policy to eliminate industry contribution toward the rural deficit as set out in the then unproclaimed *EPCA*. As a result, the Board was directed to reconsider the issues covered by the Report. In mid-1996, a revised Report was submitted to the Minister. Government has not acted upon this Report and has provided no further communication to the Board on its contents.

As well, in early 1996, Government referred to the Board the issue of appropriate rates for rural customers located from L'Anse au Claire to Red Bay. This referral was pursuant to a contract between Hydro-Quebec and NLH to construct a transmission line connecting this area with the Lac Robertson hydro-electric project. The Board held a public hearing and presented a Report to Government. Government accepted the recommendations and directed NLH to set rates equivalent to those charged by NP and eliminate preferential rates in the area.

Also, in 1996, the St. Anthony/Roddickton Isolated system was interconnected to the Island grid. Subsequently, in 1999, both the Roddickton woodchip fired plant and the diesel generating plant were decommissioned.

### **Changes to the Regulatory Framework - 1996**

By the mid 1990s Government had decided that it would make further legislative changes that would decrease its role in the supervision of the rates of NLH. In January 1996 the *EPCA* was proclaimed, which placed NLH under the full regulation of the Board. NLH would now be subject to the review and approval of the Board in setting its rates for both retail and industrial customers. The rates were to be set so as to allow NLH a just and reasonable return comparable to other utilities.

Shortly after NLH became fully regulated, there were two amendments to the *EPCA* which gave Government the right to control both rates and other matters that for public convenience or general policy are in the best interest of the province. These amendments allow the Government to direct the Board with respect to policies or procedures in relation to the

determination of rate structures and to exempt a public utility from the application of the *Act*. While Government has not generally directed the Board pursuant to these amendments, there were four exemptions, all in 2000, which include the Granite Canal Project, the Labrador Hydro Project, the Corner Brook Pulp and Paper Limited's Cogeneration Project and the Refurbishment of Hydroelectric Facilities at Abitibi Consolidated.

After the mid 1990s, interaction between NLH and the Board generally involved routine applications relating to capital budgets or financing. While there was no general rate proposal filed by NLH, there were several hearings addressing issues of limited scope, including annual capital budget approvals.

## ii) Current Industry Structure

Electrical services in the Province of Newfoundland and Labrador are provided by two utilities, NLH, which is a crown corporation, and NP, an investor owned subsidiary of Fortis Inc. NLH is principally responsible for generation and transmission with a relatively small amount of distribution. NP operates solely on the Island portion of the Province and is principally a distribution company with some generating capacity.

There are two major electrical systems operating within the Province. The Island Interconnected system functions as a stand-alone system comprising various hydro-electric developments and thermal power generated at Holyrood. The Labrador Interconnected system is supplied by Churchill Falls and is connected to the North American power grid. The more remote and isolated areas of the Province are serviced by individual diesel generating facilities.

The generation capacity on the Island is as follows:

<b>Generation Capacity</b>		
<b>Producer</b>	<b>MW</b>	<b>%</b>
NLH Island Hydro	887.4	48.27
NLH Island Thermal	598.2	32.54
NLH Isolated Island	7.9	0.43
NP	147	8.00
Deer Lake Power	121	6.58
Abitibi Consolidated	58	3.15
Non Utility	19	1.03
<b>Total</b>	<b>1838.5</b>	<b>100%</b>

(Source: Extract from R. J. Henderson, Presentation; D. W. Reeves, Schedule III)

On the Island NLH has approximately 1500 MW of installed capacity consisting of 887.4 MW of hydro-electric generation from Bay d'Espoir, Upper Salmon, Cat Arm and Hynes Lake, 598.2 MW of thermal generation from Holyrood and 7.9 MW of isolated diesel generation. NLH also owns 3,380 km of high voltage transmission lines, and 2,458 km of distribution lines.

NP's generating capacity is 147 MW from its various hydro-electric generating sites. NP purchases approximately 90% (4,434 GWh in 2001) of its energy requirements from NLH.

Energy generated by Deer Lake Power and Abitibi Consolidated is used primarily for paper mill operations in Corner Brook and Grand Falls-Windsor respectively. In situations where energy production exceeds operational requirements at the mills NLH will purchase the excess for the Island grid, as required and if it is cost effective. Under agreements, NLH also purchases power from two Non Utility Generators, the Star Lake Hydro Partnership (15MW) and Algonquin Power (4MW). For peaking purposes, NLH can also purchase power from Abitibi Consolidated (Stephenville) under an interruptible load contract where the customer will interrupt up to 46 MW of load on request by NLH.

On the Island system, NP operates transmission and distribution lines in the majority of areas excluding the South Coast, Harbour Deep, Little Bay Islands and St. Brendan's. In these areas service is supplied by NLH using nine isolated diesel generation and distribution systems. Service is supplied to the Great Northern Peninsula (except Harbour Deep) by NLH through the Island Interconnected system.

In Labrador NLH provides service to all customers. Power is purchased (1780 GWh in 2001) from Churchill Falls to supply the Labrador Interconnected system consisting of Labrador City, Wabush, and the Happy Valley-Goose Bay area. In the isolated coastal areas NLH operates 16 diesel generation facilities with a combined capacity of 20.9 MW. NLH also buys a small amount of energy from a private company in Mary's Harbour and secondary energy, when available, for the L'Anse au Loup system from Hydro Quebec's Lac Robertson hydro plant. For the L'Anse au Loup system, energy requirements in 2001 were largely met by 46.42 GWh of diesel operation and 14.17 GWh of power purchased from Hydro Quebec.

Together NLH and NP supply, transmit and distribute electricity to 252,000 domestic and general service customers as well as to six large industrial customers. NP's operations on the Island service 216,879 customers or 86% of all general service and domestic customers. NLH services the remaining 14% or 35,107 customers with 26,200 of these classified as rural customers.

The following two pages attach maps outlining the Provincial Transmission Grid and the Isolated Systems (Diesel). (Pre-filed Evidence, D. W. Reeves, Schedules I & II)



# LEGEND

- 230 kV
- - - PROPOSED 230 kV
- 138 kV
- 69 kV
- - - 745 kV OWNED BY OTHERS
- - - 230 kV OWNED BY OTHERS
- - - 138 kV OWNED BY OTHERS
- - - 69 kV OWNED BY OTHERS
- TERMINAL STATION
- ⊗ FREQ. CONVERTOR
- ⊙ ABITIBI CONSOLIDATED
- ⊗ DEER LAKE POWER



## Provincial Transmission Grid



## Provincial Isolated Systems (Diesel)

## 2. Strategic Considerations

### Challenges

This Application, representing NLH's first general rate review in ten years and its first as a fully regulated utility, presented a host of challenges for the Board.

The Application produced a massive body of evidence and a complex web of regulatory, public policy, economic, social and legal issues impacting a broad range of stakeholders. These stakeholders include residential, commercial and industrial electricity consumers living in both urban and rural areas of the Province as well as Government. In this initial application, newly applied legislative amendments governing the regulation of NLH combined with a lengthy chronology of regulatory reviews and referrals demanded detailed examination of existing policies and precedents. Certain key issues have degenerated over time making corrective measures more difficult to implement. For example, Government's Energy Policy Review<sup>1</sup> remained outstanding at the close of this hearing and raised questions regarding important public policy matters. It also became clear early in the hearing that one of the goals of NLH in its proposals contained in this Application was to avoid "*rate shock*" to customers. Throughout the proceeding NLH placed the Board on notice that financial targets and other measures contained in the Application are temporary and will be fully addressed in its next application scheduled for 2003.

For these reasons, the Board acknowledges it will take time to implement changes which will allow NLH to move forward in the context of full regulation. The Board points to the need to develop an effective strategy which will govern the regulation of NLH into the future. Mr. Wells in his opening statement indicates "*it will be necessary to achieve the ultimate objective (regulatory) through a period of adjustment*". (Pre-filed Evidence, W.E. Wells, pg. 5) Mr. Kennedy, Board Counsel, in his final remarks offered this advice: "*Accordingly, the Board must decide not only what to order on the specific issues raised in the general rate application but keep an eye looking forward to one year out, two years out, five years out, and perhaps even ten years into the future and set with that in mind a broad policy for the future regulation of Hydro.*" (Transcript, Jan. 29, 2002, pg. 18/33-39)

### Strategy

The Board recognizes that its decisions must reflect fairly and responsively in relation to this Application and set the groundwork for the regulation of NLH into the future. The Board identified a number of strategic considerations, therefore, which should assist the Board in achieving its regulatory objectives, both for this Application and looking ahead. These are:

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<sup>1</sup> While a consultation paper on the Electricity Policy Review has since been released, this paper was not available as evidence in this hearing and, therefore, was not considered by the Board.

i) Regulatory Framework

In this Application, NLH's first as a "*fully regulated utility*", it was necessary for the Board to set out an appropriate framework for regulating NLH. This regulatory framework is outlined beginning on pg. 23 of this decision and is consistent with the framework applied by the Board to NP.

ii) Public Policy Considerations

Public policy established by Government through previous Orders in Council and implemented through NLH has played a fundamental role in setting rural electricity rates. Except for the IC, ratepayers either receive the benefit of subsidized rural rates or contribute toward the subsidy. Now that NLH is a fully regulated utility, the jurisdiction of the Board and the impact of its decisions on these public policies present an important question for both consumers and NLH alike. These issues are addressed by the Board beginning on pg. 120 of this decision.

iii) Pace of Regulation

Given the time and resources consumed with this Application, the Board focused in the short term on making as many firm decisions as the Application would allow. The Board noted there was a significant array of financial and other issues that NLH deferred to be fully addressed at its next rate application scheduled for 2003. Since NLH became a fully regulated utility in 1996, the Board expresses concern with the pace of regulation and has been quite specific in outlining its future regulatory requirements in this decision, including the timing of NLH's next application.

iv) Decision Criteria

In striving to optimize short term decisions required in this Application with long term regulatory objectives, the Board felt it was important, to the extent possible, for its decision-making criteria to reflect both goals. In addition, the Board's decisions are meant to convey a clear and consistent message to the various stakeholders. In striking an equitable balance between the utility and the consumer, the Board has opted in favour of implementing policy based on rational decision-making and phasing in the resulting impact as opposed to manipulating policy over time to achieve the desired result. The former option is deemed preferable in moving toward a supportive and stable regulatory environment. Examples of this approach are reflected in decisions of the Board on the Rate Stabilization Plan (RSP) and the Labrador Interconnected system.

v) Focus for the Future

The Board believes that the early establishment of an appropriate regulatory environment is in the interests of all stakeholders. In the case of NLH, this objective has been abetted by the on-going reporting/compliance which clearly exists. Beyond this Application, the Board will continue to focus on balancing business risks with implementing desired regulatory objectives. To accomplish this balance the Board will emphasize policies and procedures over detailed review and controls.

These strategic considerations are either dealt with explicitly as outlined in this document or incorporated within the methodology and decision making of the Board in considering this Application.

### 3. Regulatory Framework

The Board is an independent, quasi-judicial agency established under Provincial legislation to regulate public utilities in the province. Regulation is designed to ensure consumers receive safe and reliable electricity at rates that are reasonable while allowing the utility to earn a fair return on its investment in supplying the electricity service. Regulation strives to strike an equitable balance between the interests of consumers and the utility.

The regulatory framework of the Board consists of five cornerstones, as follows:

- i) BOARD AUTHORITY sets out the legislative and legal powers and responsibilities of the Board.
- ii) BOARD PROCEDURES govern the presentation of the evidentiary record on matters before the Board.
- iii) REGULATORY PRINCIPLES which are commonly accepted in guiding sound utility regulation.
- iv) THE RATE SETTING PROCESS is founded in accounting, engineering and economic methodologies which are applied in combination with 1), 2) and 3) and weighed by the Board in making decisions affecting rates.
- v) REPORTING/COMPLIANCE provides appropriate regulatory monitoring of the utility's ongoing activities and enforcement of Board Orders.

#### i) Board Authority

The authority of both NLH and the Board is based in legislation. Both were created by statute, and as such are governed by the provisions of the *Hydro Corporation Act, R.S.N. 1990, c. H-16*, as amended, and the *Act*. In addition, the *EPCA* sets out the power policy of the province and roles of the stakeholders in the supply of power.

The *Act* sets out the structure of the Board and defines its powers. The Board has responsibility for the general supervision of public utilities in the province, which requires the Board to approve rates, capital expenditures and other aspects of the business of public utilities.

## Mandate

In addition to the Board's mandate under the Act, Section 4 of the EPCA states:

*“4. In carrying out its duties and exercising its powers under this Act or under the public Utilities Act, the public utilities board shall implement the power policy declared in section 3, and in doing so shall apply tests which are consistent with generally accepted sound public utility practice.”*

Accordingly, Section 3 of the EPCA states:

*“3. It is declared to be the policy of the province that*

*(a) the rates to be charged, either generally or under specific contracts, for the supply of power within the province*

- (i) should be reasonable and not unjustly discriminatory;*
- (ii) should be established, wherever practicable, based on forecast costs for that supply of power for 1 or more years;*
- (iii) should provide sufficient revenue to the producer or retailer of the power to enable it to earn a just and reasonable return as construed under the Public Utilities Act so that it is able to achieve and maintain a sound credit rating in the financial markets of the world; and*
- (iv) should be such that after December 31, 1999 industrial customers shall not be required to subsidize the cost of power provided to rural customers in the province, and those subsidies being paid by industrial customers on the date this Act comes into force shall be gradually reduced during the period prior to December 31, 1999;*

*(b) all sources and facilities for the production, transmission and distribution of power in the province should be managed and operated in a manner*

- (i) that would result in the most efficient production, transmission and distribution of power;*
- (ii) that would result in consumers in the province having equitable access to an adequate supply of power;*
- (iii) that would result in power being delivered to consumers in the province at the lowest possible cost consistent with reliable service... ”*

In summary, the EPCA mandates the Board to make rate decisions that are reasonable and not unjustly discriminatory. Rates are to be based on forecast costs for the supply of power for one (1) or more years. This timeframe in practice is generally referred to as the “test year(s)”. The legislation also ensures that the utilities be permitted to earn a just and reasonable financial return while maintaining a sound credit rating in the financial markets of the world. The legislation calls for the most efficient production, transmission and distribution of power that

will afford consumers the lowest possible cost electricity consistent with equitable, safe and reliable service.

### **Form of Regulation**

With regard to the form of regulation, Section 80(1) of the *Act* states:

*“80. (1) A 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 for each type or kind of service supplied by the public utility...”*

This is commonly referred to as return on rate base regulation. Rate base consists largely of investment by the utility in plant and equipment and historically has constituted the statutory form of regulation used in the Province. Alternative forms of regulation include Return on Equity (ROE) and/or an emerging trend toward Performance Based Regulation (PBR). Return on rate base regulation is more fully described in relation to the Rate Setting Process.

### **Statutory Limitations**

The legislative authority of the Board is, nonetheless, subject to two limitations (Sections 5.1 and 5.2) in the *EPCA* as follows:

*“5.1 Notwithstanding section 3 and section 4 of the Act and the provisions of the Public Utilities Act, the Lieutenant-Governor in Council may direct the public utilities board with respect to the policies and procedures to be implemented by the board with respect to the determination of rate structures of public utilities under the Public Utilities Act and, without limiting the generality of the foregoing, including direction on the setting and subsidization of rural rates, the fixing of a debt-equity ratio for Hydro and the phase in, over a period of years from the date of coming into force of this section, of a rate of return determination for Hydro and the board shall implement those policies and procedures.*

*5.2 The Lieutenant-Governor in Council may exempt a public utility from the application of all or a portion of this Act where the public utility is engaged in activities that in the opinion of the Lieutenant-Governor in Council as a matter of public convenience or general policy are in the best interest of the province, to the extent of its engagement in those activities.”*

The Board notes that Section 5.1 was introduced as an amendment to the *EPCA* in 1996 coincident with NLH becoming a fully regulated utility. To date, the Board has received no direction under this provision from the Lieutenant-Governor in Council. As noted previously, in 2000, pursuant to Section 5.2 the Lieutenant-Governor in Council exempted four projects, namely, the Granite Canal Hydroelectric Project, the Labrador Hydro Project, the Corner Brook Pulp and Paper Limited’s Cogeneration Project and the Refurbishment of Hydroelectric Facilities at Abitibi-Consolidated Incorporated.

## Appeal Process

Section 99. (1) of the *Act* states the statutory authority embodied in an Order of the Board, as follows:

*“An appeal lies to the Court of Appeal from an order of the board upon a question as to its jurisdiction or upon a question of law, but the appeal can be taken only by leave of a judge of the court, given upon an application presented within 15 days after the making of the decision and upon the terms that the judge may determine.”*

An Order of the Board has the force of law and is binding on the parties and can only be appealed to the Court of Appeal on an issue of law or jurisdiction of the Board.

## Stated Case

The most comprehensive judicial consideration of the authority of the Board comes from the comments of Mr. Justice Green in Newfoundland (Board of Commissioners of Public Utilities)(Re)(1998), 64 NFLD. & PEI R.60 (NFLD.C.A.) In 1998 the Board stated a case for the consideration of the Court of Appeal pursuant to Section 101 of the *Act*. Mr. Justice Green set out some general principles that apply to all decisions of the Board, which may be summarized as:

1. The *Act* should be given a liberal interpretation respecting the purpose of the legislation and the power policy of the province;
2. The Board has discretion in how it approaches its mandate;
3. The Board has all appropriate and necessary powers;
4. The Board must balance the interests of public utilities and the public;
5. The Board sets rates prospectively, after a full consideration of all available evidence; and
6. The Board has discretion to choose the approach to setting the rates as long as it observes the legislation and sound utility practice.

The court was clear in setting out that the Board must balance two sets of interests - the utility's right to a fair return and the public's right to reasonable access to power. Mr. Justice Green notes that the Board must be careful to balance both interests, when he says, at paragraph 144:

*“It must always be remembered that, as has been emphasized throughout this opinion, the Board is charged with balancing the competing interests of the utility and the consumers of the service it provides. Neither set of interests can be emphasized in complete disregard of the interests of the other. Thus, in choosing to exercise a particular power within the Board's jurisdiction, the Board must always be mindful of whether, in so acting, it will be furthering the objectives and policies of the legislation and doing so in a manner that amounts to a reasonable balance between the competing interests involved.”*

In conclusion, the Court found that the Board can be regulative and corrective but not managerial in its prospective management of a utility. Mr. Justice Green suggested that the Board should observe a presumption of managerial good faith.



## ii) Board Procedures

The Board's procedures are governed by the relevant legislation and, as a quasi-judicial body, the principals of natural justice and procedural fairness apply. The *Act* and *Regulation 39/96* both set out procedures for the Board. In addition to prescribed regulations, Section 26 of the *Act* enables the Board to establish its own procedures. This permits the Board to exercise discretion to allow for a more informal and flexible treatment of issues.

The procedures of the Board address items such as the form of the application, public notice, submission by intervenors, information requests, document exchange along with rules and protocol surrounding public hearings. While the procedures in a hearing before the Board are less formal than a court, the principles of natural justice are still observed. Complete notice is given to all interested persons who are provided with the opportunity to participate. Witnesses are sworn, and their testimony is heard by way of both direct and cross-examination. Documentary evidence is entered and the Board maintains a full and complete record of all the evidence.

Through these procedures the Board ensures that the process is accessible and transparent for stakeholders, including the public. The Board may travel throughout the province to hear from interested persons. Full and informed public debate and discussion on the issues is encouraged through the participation of the parties, the public in general and the government appointed consumer advocate.

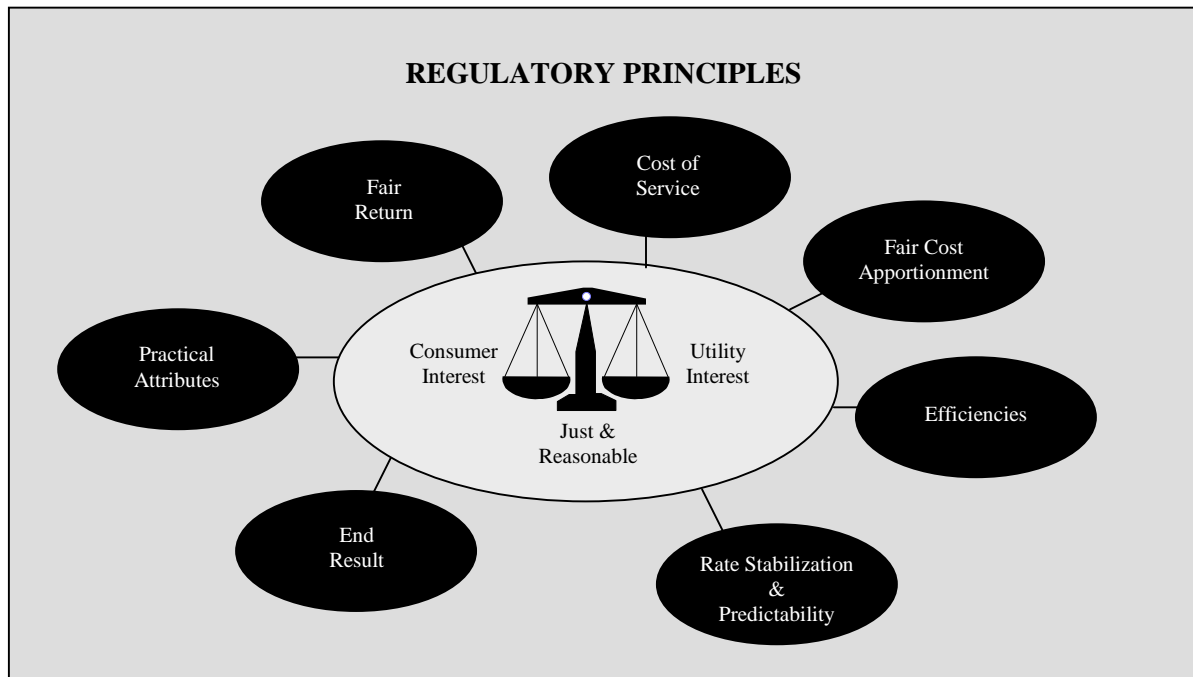
After full consideration of all of the evidence the Board will issue a reasoned decision, usually in writing. Together with the decision an order of the Board will be issued and, as noted previously, can only be appealed to the Court of Appeal.

## iii) Regulatory Principles

Sound regulatory practices encompass fundamental principles which are used by regulators as a guide or roadmap to rational decision making. As stated in the Bonbright J. C., /Danielsen A.L, Kamerscen D.R., Principles of Public Utility Rates (Arlington: Public Utilities Reports, Inc., 1988): "*We are simply trying to identify the desirable characteristics of utility performance that regulators should seek to compel through edict.*" These are commonly referred to as Bonbright's principles and are specifically outlined on pages 383-384 of his book.

Section 4 of the *EPCA* directs the Board to apply tests that are consistent with generally accepted sound public utility practice. Also Mr. Wells, NLH's CEO, in his Opening Statement during the hearing remarked: "*It is important that we adhere to sound and proven regulatory principles and practices.*" While there was a difference of opinion among expert witnesses as to the application of these regulatory principles which will be dealt with by the Board in its examination of the evidence, there was consensus as to the general principles.

The Board sets out the following principles for purposes of its regulatory framework:



1. Fair Return

Regulated utilities are given the opportunity to earn a fair rate of return. To be considered fair, the return must be:

- commensurate with return on investments of similar risk;
- sufficient to assure financial integrity; and
- sufficient to attract necessary capital.

The fair return principle is consistent with both Section 80(1) of the *Act* and Section 3(a)(iii) of the *EPCA*.

2. Cost of Service

Under this principle a utility is permitted to set rates that allow the recovery of costs for regulated operations, including a fair return on its investment devoted to regulated operations - no more, no less. Costs should be:

- prudent;
- used and useful in providing the service;
- assigned based on cause (causality);
- incurred and recovered (matching costs and benefits) during the same period; and
- reflective of private/social costs and benefits occasioned by the service.

### 3. Fair Cost Apportionment

Fairness of specific rates in the apportionment of total costs of service among the different ratepayers so as to avoid arbitrariness, capriciousness, inequities or discrimination. Under this principle, customers in similar situations should be treated equally (horizontal equity), while those in different situations should be treated differently (vertical equity). This principle would not deny cross-subsidization of rates among customers of equal circumstances but such subsidization should not cause undue discrimination. The principle of horizontal equity (i.e. equals treated equally) is set forth in Section 73(1) of the *Act* which requires that “*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, ...*”. Furthermore, the aspect of undue discrimination also has statutory reinforcement in Section 3(a)(i) of the *EPCA* which declares it to be “*...the policy of the province that the rates to be charged .....should be reasonable and not unjustly discriminatory.*”

### 4. Efficiencies

Rate classes and rate blocks should discourage wasteful use of service while promoting all types and amounts of use that are economically justified. Greater efficiency should also be employed in promoting innovation and responding economically to changing demand and supply patterns.

### 5. Rate Stability and Predictability

Rates and revenues should be stable and predictable from year to year with a minimum of unexpected changes seriously adverse to either ratepayers or utility companies. This principle may justify smoothing out increases to avoid sharp rate climbs or temporary fluctuations. The emphasis using this standard relates to the timing of rate implementation.

### 6. End Result

In compliance with the legislation, the end result must be fair, just and reasonable from the perspective of both the consumer and utility.

### 7. Practical Attributes

Rates should be simple, understandable and publicly acceptable with a minimum of controversy upon implementation.

While setting out these principles may be useful to ensure full consideration of all the issues, the Board notes that at times they may contain ambiguities, conflict with legislation, be inconsistent and/or hold different priorities. The real challenge for the Board, in keeping with its

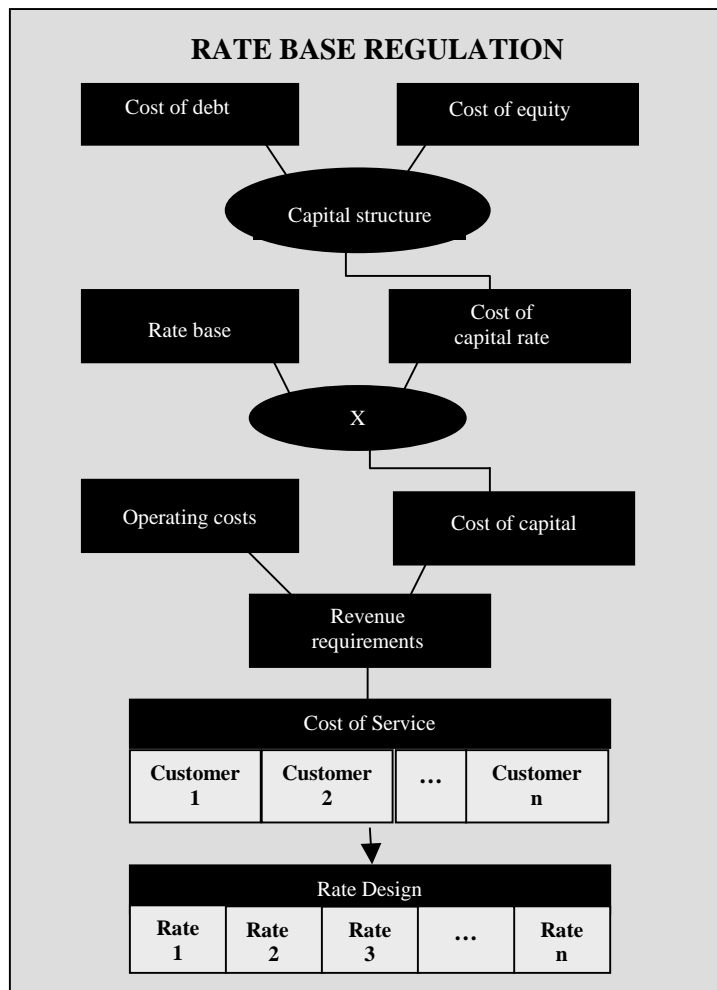
legislative mandate, is to balance oftentimes competing objectives within the regulatory environment to ensure a set of sound and reasoned decisions serving the interests of both consumer and utility alike.

#### iv) The Rate Setting Process

The rate setting process is founded in accounting, engineering and economic methodologies and is the proverbial glue that binds the regulatory framework. The Board's authority, the evidence and regulatory principles are combined by the Board through this process to make decisions affecting rates. The rate setting process is described below.

#### Rate Base Regulation

As noted previously, pursuant to Section 80 of the *Act*, the regulatory framework of the Board is founded in rate base regulation. The elements of rate base regulation are illustrated as follows:



(As modified from "*Basics of Canadian Rate Regulation*", pg. 13)  
J. T. Browne and Charles Perron, Deloitte & Touche, 1997

The focus of return on rate base regulation is on earnings, in particular the allowed return per dollar of investment (rate base). Rates are set that give the regulated utility the opportunity to recover its revenue requirement consisting of its estimated operating costs and a fair return on its rate base. These costs are generally estimated for a test year for which the rates are set.

### **Rate Base**

Rate base is the amount of investment on which a regulated utility is allowed to earn a fair return. Rate base comprises primarily depreciated investment in plant and equipment plus working capital as well as certain deferred assets/costs attributable to future operations. Regulators tend to focus on whether additions to the rate base, looking at the asset, are needed and if the cost is reasonable.

### **Capital Structure**

Capital structure is the relative amounts of equity and debt, commonly referred to as the debt to equity ratio, which comprises a company's total invested capital. The total invested capital represents the funds invested in the public utility by shareholders (equity) and by bondholders and other long-term debt holders (debt). The just and reasonable rate of return allowed on rate base is equivalent to the cost of capital representing the sum of the weighted costs of both debt and equity in the capital structure.

An appropriate capital structure is normally established by a company's management through an examination of the costs and risks involved with each source of funds, both debt and equity. Management must strive to choose an efficient capital structure which will provide access to needed capital at lowest cost.

### **Revenue Requirement**

Revenue requirement is the amount of revenue required by a utility to cover the sum of operating costs including debt service, taxes (not applicable to NLH), and allowed return on rate base (\$ rate base x cost of capital). The revenue requirement is the total amount of money a utility is eligible to collect from customers through rates:

$$\text{Revenue Requirement} = \text{Operating Costs} + (\text{Rate Base} \times \text{Rate of Return})$$

From a regulatory perspective, efficient operations, fully justified capital expenditures and a low cost capital structure all combine to minimize revenue requirement, and hence provide least cost electricity to ratepayers.

### **Cost of Service**

Cost of service constitutes the basis on which the utility's revenue requirements are allocated to each class of customer served. The utility normally submits a study of the costs incurred in producing, transmitting and distributing electricity to its customers, by customer class.

## **Rate Design**

Once the cost of service or revenue requirement is allocated by customer class, specific rates are determined to recover the required costs/revenues from each customer within the class.

### **v) Reporting/Compliance**

Reporting/Compliance is the mechanism used to monitor the ongoing activities of the utility from a regulatory perspective and is an important part of the regulatory framework. Section 16 of the *Act* states:

*“The board shall have the general supervision of all public utilities, and may make all necessary examinations and inquiries and keep itself informed as to the compliance by public utilities with the law and shall have the right to obtain from a public utility all information necessary to enable the board to fulfil its duties.”*

Consistent with Mr. Justice Green’s findings, the role of the Board is not to exercise managerial influence but to ensure appropriate reporting/compliance mechanisms are in place such that regulatory objectives are met. The objective of the Board is to focus on regulatory accountability of the utility rather than engage in detailed reviews and costly controls. In keeping with this approach, some examples of the Board’s reporting/compliance requirements requested of the utilities include:

- Compliance with Board Orders
- Annual financial review
- Quarterly reports
- Incident/Outage reports
- Technical reports
- Productivity, cost benefit and efficiency studies.

### **vi) Summary**

The regulatory framework of the Board has been in place in one form or another since the Public Utilities Board was established in 1949. This framework has evolved to date through a series of legislative amendments and case law. The regulatory framework of the Board is comprised of five distinct elements:

- i) Board Authority
- ii) Board Procedures
- iii) Regulatory Principles
- iv) Rate Setting Process
- v) Reporting/Compliance.

This regulatory framework has been used by the Board to regulate NP. The Board believes a consistent and equitable regulatory framework would be in the interests of both the utility and consumers. For this reason, the existing regulatory framework described above will be used as the standard in assessing NLH’s first general rate application as a fully regulated utility.

## PART TWO. BOARD DECISIONS

### I. CAPITAL STRUCTURE

#### 1. NLH Proposals

NLH proposes under Section 14(9) of the Application that the following long-term financial targets based on current market conditions be set by the Board as appropriate:

Return on Equity (ROE) - 11% to 11.5%

Debt/Equity (D/E) Ratio - 60:40.

For the interim, NLH proposes that the Board allow a ROE of 3%.

In final argument (pg. 35-36) NLH submits:

*“Hydro proposes that its long term debt/equity ratio target be 60/40, and further stated in its Application that, if it had been requesting a “normal” rate of return in the Application, it would have been in the range of 11% to 11.5% ROE. However, Hydro did not propose that these financial targets be attained in the test year. Messrs. Wells and Osmond on behalf of Hydro explained that the magnitude of the rate increase and its impact on Hydro’s customers moderated Hydro’s position with respect to the time period over which these financial targets should be achieved. (pre-filed evidence, W.E. Wells, p. 14, pre-filed evidence, D.W. Osmond, p. 5) If a return on equity of 11.25% had been used in the original filing, the proposed rates to NP would be approximately 6% higher than the base rate increase requested. (Pre-filed Evidence, D.W. Osmond, pg. 6/7-9)*

*Because the provincial guarantee of Hydro’s debt permits Hydro to operate with a lower capital structure than otherwise, Hydro proposes that the following targets be adopted in the short term:*

- 1. a debt/equity ratio of 80/20 with the 2002 debt/equity ratio being 83/17;*
- 2. a ROE of 3% for 2002 as a means of assisting in reducing the rate increases required for customers; and*
- 3. a return on rate base of \$98,319,000 (Schedule VII A, J. C. Roberts, pre-filed evidence October 31, 2001) or 7.2%.*

*However, in view of Hydro’s request for these low financial targets in the test year, it was emphasized by Hydro witnesses that it was essential that the financial markets be advised, through the decision of the Board, that the targets established were short-term in nature, with the principle being adopted that Hydro is entitled to earn a return normally approved by the Board for a commercial entity, whether it be investor-owned or Crown owned.” (Pre-filed Evidence, W.E. Wells, pg. 13/27-31)*

NLH believes the Board should endorse the long term target of a 60/40 debt equity ratio. (NLH, Final Argument, pg. 39/15-17)

## 2. Introduction

NLH's long-term debt consists of promissory notes, debentures and long-term loans which are unsecured but unconditionally guaranteed by the Province. The Province charges NLH a guarantee fee of 1% annually on the total debt (net of sinking funds) guaranteed. The Province is NLH's sole shareholder and equity has accumulated in NLH over the years in the form of retained earnings. NLH's "*regulated*" average capital structure for 2000 is outlined in Exhibit 1 of GT's 2001 General Rate Hearing Report as \$1,106,400,000 Debt (D) and \$278,800,000 Equity (E) for a D/E ratio of 80/20 (est)<sup>2</sup>.

Beginning in 1995, Government, as shareholder, required NLH to pay dividends. As shown in NP-72 these dividends have varied over the years both in absolute terms (\$1,309,000 - 1999 to \$14,500,000 - 1995) and as a percent of net regulated operating income (10% - 1999 to 172% - 2000). Government has served notice on NLH that it may be seeking a dividend, forecast at \$70,147,000 or 730% of projected net regulated operating income for 2002.

In NLH's situation, the risks and costs associated with its capital structure are closely linked to issues of Provincial ownership, Provincial guarantee of debt and the resulting regulatory treatment of NLH. The Board felt these issues constituted a sound place to start its assessment of NLH's capital structure and return on rate base proposals.

## 3. Government Guarantee

The Provincial Government provides a guarantee in relation to NLH's debt. The Province receives compensation for this guarantee in the form of an annual fee paid by NLH equivalent to 1% of the previous year's debt. NP-77 notes this fee in the 2002 test year will amount to \$12,336,000. This amount includes adjustments to the guarantee fee based on the notional increase in promissory notes resulting from recall revenue cash flow. (NP-253; Transcript, Jan. 9, 2002, pg. 6/71-81)

It was clear from the evidence that the ability of NLH to maintain a sound credit rating in the financial markets of the world is currently dependent on this Government guarantee. NLH acknowledges this in their final argument in reference to Ms. McShane's pre-filed evidence. (NLH, Final Argument, pg. 22/5-9) Ms. McShane indicated the Provincial guarantee allows NLH to access funds from the capital markets at more attractive rates than it could achieve on its own, in virtually all market conditions. (Pre-filed Evidence, K. McShane, pg. 20/27-28 & pg. 21/1-4) Dr. Kalymon concluded the capital structure of NLH would not be financially viable in the absence of the Provincial guarantee. (Pre-filed Evidence, Dr. B. Kalymon, pg. 12/8-9) Mr. Hall observed the Provincial guarantee provides a number of advantages to NLH; among them, access to debt markets, attractive financing rates and the ability to operate at excessive debt

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<sup>2</sup> Estimated only .0.8% due to Employee Future Benefits.



levels. (Pre-filed Evidence, D. Hall, pg. 5-6/8-3) The witnesses did not dispute the financial benefits of the Provincial guarantee to NLH.

IC-61 stated insofar as NLH is aware at this time there will be a continuation of the guarantee of NLH's debt and the payment by NLH of a 1% guarantee fee to the Province. Outside of NLH's assurance, the Board heard no direct evidence concerning Government's disposition on the Provincial guarantee. Clearly in light of the financial implications of any precipitous change in policy regarding the Provincial guarantee, the Board is left to conclude that its withdrawal is unlikely under current circumstances

The Board acknowledges the fundamental importance of the provincial guarantee to NLH's financial status. The Board recognizes the need to maintain the Provincial guarantee until such time as NLH is in a position to achieve and maintain a sound credit rating in the financial markets of the world on a stand-alone basis.

In considering the appropriateness of the amount of the fee, NLH quotes Ms. McShane as follows:

*"The test for whether the guarantee fee is a legitimate component of the cost of debt is whether the cost inclusive of the guarantee fee is less than or equal to the cost at which the utility could raise debt on the strength of its own financial parameters. At the forecast utility capital structure the cost of debt to NLH absent the Provincial guarantee, would be more than 100 basis points higher than the debt cost calculated with the guarantee fee".* (NLH, Final Argument, pg. 22/15-21)

While both Ms. McShane and Dr. Kalymon used somewhat different methodologies in approaching this issue, Dr. Kalymon concluded the guarantee fee of the Province is not excessive given the equity investment which the guarantee implies. Dr. Kalymon notes, however, that the guarantee fee would need to be reduced should NLH's equity increase to stand-alone proportions. (Pre-filed Evidence, Dr. B. Kalymon, pg. 14/10-16). Mr. Hall observes the guarantee fee paid to the Province is an expense to the utility for value received and is quite clearly an appropriate component of its cost of debt. (Pre-filed Evidence, D. Hall, pg. 6/14-16) In final argument (pg. 97) the IC observes NLH (and ultimately the ratepayers) pays a generally appropriate guarantee fee. No parties presented evidence disputing the level of compensation paid by NLH to the Province in return for its guarantee.

**The Board accepts that the Government guarantee plays an essential role in NLH's ability to maintain a sound credit rating in the financial markets of the world. The Board concurs that the guarantee fee of \$12,336,000 in the 2002 test year is appropriate.**

#### **4. Dividends**

As sole shareholder of NLH, Government advised in the 1995/96 Provincial budget that it would be seeking an annual dividend from NLH as a return on the public investment in the electrical industry. (NP-168) In addition to dividends on the regulated earnings of NLH and the

Provincial guarantee fee, the Province also receives dividends from CF(L)Co as well as revenue on Hydro-Quebec recall power. (PUB-57)

NP-72 outlined the dividends paid by NLH to Government since 1995 in relation to net regulated operating income as follows:

<b>Year</b>	<b>Dividends Paid During Year - ex Recall and CF(L)Co \$(000)'s</b>	<b>Net Regulated Operating Income \$(000)'s</b>	<b>As a % of Net Regulated Operating Income</b>
<b>1995</b>	14,500	22,829	64%
<b>1996</b>	9,688	20,693	47%
<b>1997</b>	12,357	31,351	39%
<b>1998</b>	10,489	24,847	42%
<b>1999</b>	1,309	13,015	10%
<b>2000</b>	10,026	5,829	172%
<b>2001</b>	11,976	13,727	87%
<b>2002 (F)</b>	<u>70,147</u>	<u>9,610</u>	730%
<b>Total</b>	<b><u>140,492</u></b>	<b><u>141,901</u></b>	

F-forecast

The forecast dividend for 2002 is in excess of \$70,000,000 representing an estimated 730% of the net regulated operating income. Should this amount of dividend be paid, it is projected the impact on revenue requirement for the 2002 test year will be \$1,700,000 (NP-72) and \$2,400,000 for 2003 (NP-205). With the \$70,000,000 payout, the dividends paid since 1995 approximate the Net Regulated Operating Income (NROI) earned by NLH over the same period (Dividend - \$140,492,000 versus NROI - \$141,901,000).

NLH's regulated capital structure as outlined in GT's 2001 General Rate Hearing Report is as follows: (pg. 11)

	<b>1998 %</b>	<b>1999 %</b>	<b>2000 %</b>	<b>2001(F) %</b>	<b>2002(F) %</b>
<b>Debt</b>	79.3	79.0	79.2	80.0	83.1
<b>Employee Future Benefits</b>	0.0	0.0	0.8	1.6	1.6
<b>Equity</b>	<u>20.7</u>	<u>21.0</u>	<u>20.0</u>	<u>18.4</u>	<u>15.3</u>
<b>Total</b>	<b><u>100.0</u></b>	<b><u>100.0</u></b>	<b><u>100.0</u></b>	<b><u>100.0</u></b>	<b><u>100.0</u></b>

F- forecast

GT's report further notes that the primary reason for the decrease in equity in the 2002 test year is the forecast dividend payout of \$70,000,000. IC-66 (Rev) shows that, without the payment of any dividends since 1995, NLH's debt to equity ratio for the 2002 test year would be approximately 75/25 versus 83/17 as projected.

In May 2000 NLH's Board of Directors changed its dividend policy originally introduced in November 1995 as follows (IC- 276):

<u>1995</u>	<u>2000</u>
<p>The Corporation shall pay each year to its sole shareholder, the Government of Newfoundland and Labrador, dividends of up to 75% of the Corporation's net operating income for that year provided that such payment shall not cause a deterioration in the existing debt/equity ratio of the Corporation, with such dividends to be paid on a quarterly basis.</p>	<p>The Corporation shall pay each year to its sole shareholder, the Government of Newfoundland &amp; Labrador, dividends of up to 75% of the Corporation's net operating income before net recall revenue for that year plus 100% of net recall revenues received, provided that such payment shall only be made after due consideration has been given by the Board of the impact of such payment on the debt/equity ratio of the Corporation.</p>

The 1995 dividend policy was developed at that time based on advice from Scotia McLeod, NLH's Financial Advisors. (NP-169)

Witnesses expressed differing views regarding the impact of the dividend paid in the test year. Ms. McShane noted a supportive dividend policy which is predictable is in the best interests of shareholders, management and ratepayers and recommends the Province, as shareholder, implement and maintain its dividend policy as approved by the Board of Directors. (Pre-filed Evidence, K. McShane, pg. 24/24-28; Transcript, Oct. 29, 2001, pg. 9/7-8) Dr. Kalymon suggested money paid out in dividends is effectively replaced by debt with the liability remaining with the Province through its guarantee. (Transcript, Nov. 13, 2001, pg. 32/23-26)

Mr. J.T. Browne commented where dividend payments result in higher revenue requirements, one option is to deem a capital structure as if the dividends had not been paid. (Pre-filed Evidence, J. T. Browne, pg. 22/20-21) In principle, he had no objection to the payment of the dividend as long as the guarantee remained in place. (Transcript, Nov. 2, 2001, pg. 16/1-9)

NLH's position outlined in its final argument (pg. 46) contends the shareholder is entitled to a return and that there was nothing so unusual about the proposed payment of dividends that it would require an adjustment to ROE.

NP in its final argument (pg. 35-38), while not disputing the shareholder's right to request such a dividend, submits the \$70,000,000 proposal in the test year is excessive from a rate making perspective. NP argues that a payout of 75% in line with NLH's policy would reduce the proposed revenue requirement by an estimated \$1,500,000 and concludes this reduction should be accurately determined and an adjustment made accordingly.

The IC agree with NP's position on the \$1,500,000 adjustment to revenue requirement. (Transcript, Jan. 28, 2002, pg. 31/3-7) In final argument (pg. 97-100) the IC submit that Government as "*shareholder*" made no initial investment in NLH. Over the years, the accumulation in "*retained earnings*" which form part of NLH's regulated operations constitute "*ratepayer equity*" in NLH which the IC conclude must be isolated in a separate account from "*shareholder equity*", the only source from which dividends may be paid to Government.

The Board concurs with the prevailing view expressed during the hearing that dividend policy is a matter between NLH and its shareholder and is an issue over which the Board has no direct control. The Board acknowledges the right of the shareholder to receive an appropriate dividend. The declaration of dividends in a normal business environment results from decisions made by the company's Board of Directors in concert with management based on an assessment of risks. Both Dr. Kalymon and Mr. J. T. Browne's testimony took no issue with the dividend insofar as Government provides a guarantee. The Board notes the proposed \$70,000,000 dividend runs contrary to NLH's own dividend policy and produces impacts that are inconsistent with the long term financial objectives NLH is seeking to establish in its first Application as a fully regulated utility.

Mr. Wells indicated that while no firm decision had yet been made by Government on the test year dividend, NLH would move forward over time towards its targeted objectives. (Transcript, Sept. 24, 2001, pg. 38/74-92)

The Board makes no further comment on NLH's dividend policy but suggests greater consultation regarding future dividends between NLH and its shareholder may prove in the interests of all parties. The Board notes that, while IC-49 reveals no discussions with the shareholder have been held to date, NP-73 reflects NLH's intentions to meet with the shareholder on a stable dividend policy following direction from the Board. The Board encourages this consultation.

The IC argument concerning the Province's entitlement to dividends from only the "*unregulated*" entity CF(L)Co, based on its share structure, was not supported or commented on by any other Intervenor. The Board points to the ownership of NLH as a Crown Corporation, with the Province being its sole shareholder, and notes financial risk is borne by the shareholder.

The Board agrees a supportive dividend policy which produces a predictable and stable outcome on rates is preferable. Rate stability and predictability is one of the principles contained in the Board's regulatory framework and serves the interests of customers.

The Board concludes the \$70,000,000 dividend is an extraordinary event for the test year, which, if declared, will have a significant adverse impact on the revenue requirement, and hence rates. A fair and reasonable dividend should be permitted and appropriate interest allowed in the test year. The Board has no basis for determining this interest adjustment other than linking it to the established dividend policy of NLH which provides for a payout of up to 75% of net operating income at the discretion of NLH's Board of Directors.

The Board sees little merit in Mr. J. T. Browne's suggestion that it deem a capital structure as if the extraordinary dividend were not paid. This approach is not seen as necessary in light of the 3% ROE and the Board adjusting revenue requirement consistent with NLH's adopted dividend policy.

The declaration of dividends is a matter between NLH and its shareholder, Government. The Board does recommend improved coordination and consultation between NLH and Government on establishing a mutually appropriate and predictable dividend arrangement on a go forward basis.

**The Board feels the proposed dividend payment of \$70,000,000 in the 2002 test year places an excessive burden on consumers when it is included in revenue requirement. The Board finds that the interest expense and return on equity in the 2002 test year revenue requirement should be based on NLH's dividend policy providing for dividends of up to 75% of its net operating income. The interest cost for the 2002 test year will be required to be reduced using the embedded cost of debt to reflect the cost of financing the dividend in excess of NLH's dividend policy. A corresponding increase in return on equity or net earnings reflecting the requested 3% return on the notional increase in equity will partially offset the interest reduction.**

## **5. NLH's Request To Be Treated As An Investor Owned Utility**

Before deciding on NLH's interim and long term proposals for its capital structure and return on rate base, a fundamental determination is how NLH should be treated within the context of the *Board's* regulatory framework.

Mr. Wells, NLH's CEO, stated the legislative amendments indicate that, as a matter of public policy, NLH is intended to operate as a fully regulated utility, more similar to that of an investor owned utility than has previously been the case. (Pre-filed Evidence, W.E. Wells, pg. 6/20-22) As earlier quoted in NLH's final argument (pg. 36) it is NLH's position that it is essential the financial markets be advised, through the decision of the Board, that the targets established are short term in nature, with the principle being adopted that NLH is entitled to earn a return normally approved by the Board for a commercial entity, whether it be investor owned or crown owned.

A consensus existed among cost of capital witnesses that NLH should be treated as an investor owned utility. Ms. McShane indicated, pursuant to the legislation, NLH's rates are to be determined on the basis of a rate base/rate of return model similar to that which governs the regulation of the preponderance of investor owned utilities in North America, and specifically, similar to that used to set rates for NP. (Pre-filed Evidence, K. McShane, pg. 2/29-32) Mr. Hall concurs that, to the greatest extent possible, in coming up with appropriate returns and capital structures, NLH should be treated as an investor owned utility. (Transcript, Oct. 31, pg. 36/60-68) Mr. J.T. Browne agreed it is appropriate for a public sector utility to use normal commercial targets respecting rate base subject to a separation of the role of government as an investor and its normal role given to social and public policy objectives. (Pre-filed Evidence, J.T. Browne, pg. 15/15-18; pg. 16/11-12) Dr. Kalymon and Mr. Hall both concurred with this explicit separation

of social policy objectives. (Transcript, Nov. 14, 2001, pg. 7/20-101 Transcript, Nov. 1, 2001, pg. 31/3-5) Dr. Kalymon further felt investor owned regulation is implicit in the legislation in that “*just and reasonable return*” is the same wording applied to privately owned utilities and also in that the legislation refers to NLH achieving a sound credit rating. (Transcript, Nov. 14, 2001, pg. 4/82-92)

The IC submitted that there is no investor owned utility that could come before a Board in current circumstances and look for a 3% return on equity. The IC further argue NLH has no stand-alone equity base and it doesn't have any plans to get one. The only reason that all these things can happen is because government guarantees the debt of NLH. The IC concluded that the notion of a commercial entity<sup>3</sup>, to the extent that it costs ratepayers money, is neither mandated nor justified by the legislation that governs the Board in its considerations. (Transcript, Jan. 28, 2002, pg. 25/15-20,45-48)

While not addressing the investor owned concept, NP suggests in its final argument (pg. E-6) that it is only appropriate to deal with the requested ROE of 3% at this time and the longer-term D/E target of 60/40 should not be endorsed in the absence of a concrete plan to reach this objective.

The CA did not comment in final argument on NLH being regulated as an investor owned utility.

NP-75 provides a number of legislative excerpts in support of NLH's case that, as a matter of public policy, it is intended to operate as an investor owned utility. NLH's position on this issue, however, is developed primarily as a consequence of the evidence and its interpretation of *EPCA*, Section 3(a)(iii) wherein it is the policy of the province ... to enable NLH “*to earn a just and reasonable rate of return as constituted under 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 notes NLH's credit rating, as attested to earlier, is dependent on the standing provincial policy which currently guarantees NLH's debt. While it is true witnesses presented evidence in support of NLH being treated as an investor owned utility, none of these witnesses recommended the elimination of the provincial guarantee. Ms. McShane stated there is no reason to withdraw the guarantee as long as the appropriate compensation for the risks that are being taken is represented in the return to debt and the return to equity. (Transcript, Oct. 29, 2001, pg. 12/10-13). Mr. Hall remarks, in the transition period, there are significant advantages to the utility in the guarantee, and hence, as long as the Province makes it available at reasonable cost, electricity consumers are better served by the utility using it. (Pre-filed Evidence, D. Hall, pg. 6/25-28) Dr. Kalymon indicated “*nowhere in my testimony do I say that the provincial guarantee is to be removed or assume that it is being removed*”. (Transcript, Nov. 14, 2001, pg. 6/15-16) Finally, Mr. J.T. Browne concedes, if government guarantees the debt and charges the utility, which then gets passed on to customers, the lower equity ratio should be considered. (Transcript, Nov. 2, 2001, pg. 15/19-22)

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<sup>3</sup> Commercial entity and investor owned utility, while having slightly variant definitions in their usage by intervenors/witnesses, are for purposes of this report indistinguishable.

The Board further evaluated NP-75 and NP-76 outlining both the similarities and differences respectively in the way NLH currently operates and how it would operate as a fully regulated utility, more similar to an investor owned utility. NLH views these similarities as follows (NP-75, pg. 5-6/28-2):

- Operate in an efficient and least cost basis
- Achieve appropriate return on rate base
- Provide an appropriate return on equity
- Achieve appropriate debt/equity ratios
- Provide an appropriate dividend payout.

The Board is of the view that the comparisons NLH has set for itself in this RFI do not currently exist. Efficiency and productivity standards have yet to be determined. Through NLH's own admission, return on rate base, return on equity and debt/equity ratio reflected in this Application is not in keeping with stand-alone investor owned utilities. As outlined previously, the issue of future dividend payout and its impact on rates remains uncertain.

The main differences between the way NLH is intended to operate and an investor owned utility are, as follows (NP-76, pg. 1/8-18):

- As a Crown Corporation, NLH may receive directions from its shareholder, the Government of Newfoundland and Labrador, which reflects social or public policy considerations, not in conflict with legislation, which NLH will implement;
- NLH's ability to borrow and its borrowing program is influenced by the fact its debt is guaranteed by the Province, NLH is able to borrow at the lower cost, which results in lesser cost to customers.
- As a Crown Corporation, NLH is not subject to corporate income taxes.

There has been no evidence to suggest that these differences will be eliminated in the short term.

As shown in CA-113, the Board also notes a capital structure reflecting greater equity and an increased ROE will result in higher revenue requirements, and hence higher rates for consumers. NLH has not presented a plan on how its investor owned financial objectives will be achieved or what the impact of these objectives will be on rates. IC-49 indicates NLH will be outlining its recommendations to the Board for achieving reasonable medium and long term financial targets at each future rate application.

In summary, for the most part, final arguments did not address the concept of regulating NLH as an investor owned utility. NLH is able to sustain its borrowing capacity in the financial markets of the world because of the Provincial guarantee and there was no evidence to indicate this should or will change. The Board concludes there is no statutory or evidentiary foundation for regulating NLH similar to an investor owned utility and points to the fact that NLH as a fully

regulated utility is subject to the Board's existing regulatory framework. As outlined previously, this framework is currently used to regulate NP, an investor-owned utility, and is capable of regulating NLH in a similar manner, when and if this designation is warranted. The Board notes NLH has presented no concrete plans as to how it will achieve its stated goals in operating similar to an investor owned utility (See NP-75) and what the impact of implementing these plans will be on electrical rates for consumers, business and industry in the Province.

**The Board finds no statutory basis for treating NLH as an investor owned utility. The Board concludes approval in principle of NLH's request to be treated as an investor owned utility is not justified based on its current operating characteristics. The Board believes NLH's request is premature in the absence of a sound plan by NLH of how it will achieve financial targets similar to an investor owned utility and what impact this will have on its customers. The Board notes that NLH's debt is guaranteed by Government and this ensures NLH's continued access to the capital markets of the world.**

## **6. Debt/Equity**

NLH's forecast average "*regulated*" capital structure for 2002 is contained in the evidence of Ms. McShane and Mr. Roberts. [Pre-filed Evidence, K. McShane, pg. 15/Table2; (Supplementary Evidence, J.C. Roberts, Schedule VIIIA) NLH's regulated capital structure beginning in 1998 with projections for 2001 and 2002 is set out on pg. 43 of this decision.

The 2002 test year forecast debt/equity ratio is 83/17 based on the assumption of a \$70,000,000 dividend paid to the shareholder. NLH is proposing that the Board adopt debt/equity targets in the short term of 80/20 with approval in principle to move to 60/40 debt/equity in the longer term. (NLH, Final Argument, pgs. 35-36)

In final argument (pg. 39) NLH points to the conclusions reached by Ms. McShane, Dr. Kalymon and Mr. Hall indicating the appropriate capital structure should be consistent with the business risk NLH faces and should permit NLH, on a stand-alone basis, to achieve an investment grade rating of BBB or better. This debt/equity, NLH concluded, is 60/40 based on Ms. McShane's evidence. NLH continues, in light of the fact that the parties have agreed that the debt/equity of 83/17 in the test year can be supported in the short term, the Board may ask whether it needs to comment on a longer term financial structure for NLH. NLH believes it is essential for the credit rating agencies and the financial markets of the world to be aware that the acceptance of both a capital structure of 83/17 and a 3% ROE are temporary measures only. These measures are intended to mitigate current circumstances and are not reflective of the Board's position on the appropriate returns that NLH should earn in normal circumstances. (NLH, Final Argument, pg. 39-40/25-2)

NP's final argument notes the five-year financial plan in IC-98 shows NLH achieving an 82/18 debt/equity ratio by the year 2005. NP is of the view that the target 80/20 debt/equity ratio as provided for by this Board in its 1992 report is sufficient as long as NLH remains a Crown Corporation with its debt guaranteed by the Province. (NP, Final Argument, pg. E-3) NP further contends the Board should refrain from endorsing NLH's longer term debt/equity targets of



60/40 in the absence of a concrete plan. Finally, NP states there is no evidence that this target would be in the best interest of electricity consumers. (NP, Final Argument, pg. E-4)

The IC state in final argument that NLH has a sound credit rating now based on the government guarantee of its debt. The common and sensible decision is to continue to pay the fee rather than attempt to move to a stand-alone situation which could only be viable with a much different debt/equity structure. In summary the IC argued there is no pressing need to increase the equity in NLH at ratepayer's expense, and the least cost option consistent with the *EPCA* does not require the Board to address capital structure at this point. (IC, Final Argument, pgs. 93-94)

The Board notes that the longer term 60/40 capital structure proposed in the Application is pursuant to the principle of regulating NLH similar to an investor owned utility. For reasons already explained, the Board is not persuaded by the evidence to endorse this concept at this time. Neither, therefore, is the Board prepared to accept NLH's related proposal to move to a 60/40 capital structure. The evidence supports 60/40 as an appropriate target if NLH is to be operated on a stand-alone basis without a Government guarantee. As pointed out earlier, none of the witnesses are advocating the withdrawal of the Provincial guarantee. While a 60/40 capital structure appears to be an extension of NLH's argument to be treated as an investor-owned utility, there is no accompanying plan as to how or when this will be achieved or the impact a doubling of the equity base will have on customers. The Board points to a notable inconsistency in this area when IC-98 shows NLH's financial plan in 2005 projecting a capital structure of 82/18. The Board earlier concluded the build up of equity is dependent on NLH's ability to exercise control over its dividend stream into the future. This issue remains unresolved and is subject to further discussions between the shareholder and NLH.

The intervenors did not object to NLH's targets for a capital structure of 83/17 in the 2002 test year and a move toward 80/20 in the short term. This latter target (80/20) is in keeping with the recommendation of the Board's 1992 report.

**The Board accepts NLH's proposals for a debt/equity ratio in the 2002 test year of 83/17 and a target short term debt/equity ratio of 80/20. The Board concludes the evidence does not support the principle of NLH moving to a capital structure of 60/40 at the present time. If NLH is committed to move in this direction, it must formulate an appropriate long term financial plan to present to the Board.**

## 7. Return on Equity

NLH's return on equity forecast for the test year 2002 is contained in Mr. Roberts' evidence. (Supplementary Evidence, J.C. Roberts, Schedule 1A) Adjusting for non-regulated earnings, NLH's regulated return on common equity is shown in GT's 2001 General Rate Hearing Report (pg. 12) as follows:

	1998	1999	2000	2001(F)	2002(F)
<b>Regulated Return on Common Equity (%)</b>	8.76	4.34	2.10	5.11	3.00

F – forecast

NLH explained that the proposal of a 3% ROE in the 2002 Test year is a means of assisting in reducing the rate increases required for customers. (NLH, Final Argument, pg. 36/4-5).

Several witnesses submitted evidence concerning NLH's long-term ROE. In final argument, however, NLH withdrew its long-term proposal for a return on equity (ROE) of 11-11.5%. (NLH, Final Argument, pg. 35/19-23)

NLH in its final argument comments that the decision on a fair and reasonable return need not be determined in this proceeding, given NLH's request for only a 3% ROE. That decision can be made at the time of NLH's request for a full return on rate base in light of economic and capital market conditions prevailing at the time. (NLH, Final Argument, pg. 38/1-7) Similar to its proposal on capital structure, NLH feels it is essential that the Board's decision convey to the financial markets that the acceptance of 3% ROE is a temporary measure, short term in nature, to reflect current circumstances. (Transcript, Jan. 28, 2002, pg. 6/67-71)

NP states that, while the otherwise acceptable ROE for NLH at this time would be higher, NLH has chosen to seek only 3% and indicates this fact alone in the Board's Order should be sufficient to address Mr. Wells' concern of sending an appropriate message to the financial markets. (NP, Final Argument, pg. E-3)

The IC state that, given the Board has more than enough real contested issues, it need do nothing more at this point than state it is satisfied with the 3%. Furthermore, the Board can indicate it has not been requested to determine a just and reasonable rate for 2002 and will not do so until such time as an application requests approval of a market rate. (IC, Final Argument, pg. 96)

The CA submits NLH's Application requesting a 3% ROE is flawed from a number of perspectives. Section 80. (1) of the *Act* makes reference to return on rate base but does not refer to return on common equity. The Stated Case<sup>4</sup> points to the rate of return on rate base being a reasonable range as opposed to a fixed number. The absence of a cap exercises no limitation on NLH realizing excess earnings on ROE above a reasonable rate of return. Based on these conclusions, the CA feels the Board should allow NLH to earn an ROE in the range of 2.5-3.0% in the test year, while recognizing that, theoretically, but for NLH's request for a 3% ROE, NLH would be entitled to 8.5-9.0% for the test year (CA, Final Argument, pgs. 4,7, 52).

The Board does acknowledge a 3% ROE is well below market and recognizes NLH's entitlement to earn a just and reasonable ROE in concert with the legislation. As suggested by NLH, a determination on full return on rate base can be made based on a future request and in light of economic and capital market conditions prevailing at the time. This position was generally accepted by all parties.

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<sup>4</sup> Stated Case refers to Newfoundland (Board of Commissioners of Public Utilities) 164 Nfld. and P.E.I.R. 60 (NF CA)

The Board is not persuaded by the arguments of the CA and feels a 3% ROE is sufficiently limiting to prevent excess earnings. Consideration of ROE simply sets the equity dimension of the cost of capital and does not compromise the ability of the Board to determine a just and reasonable return on rate base as set out in the legislation. Finally, setting a reasonable range of return would serve to either undercut the acknowledged conservative ROE requested by NLH or increase the ROE above that requested. Either scenario is not deemed prudent by the Board.

**The Board accepts NLH's request for a 3% ROE in the 2002 test year. The Board acknowledges this level of ROE is below normal market returns because of NLH's position taken in this Application to lessen the rate impact on its customers. Consideration of a more normal return will be subject to a future request by NLH.**

## **II. FORECASTING: PRODUCTION AND FUEL COSTS**

### **1. Introduction**

#### **Forecasting**

Accurate forecasting plays a key role in setting the revenue requirement and resulting electricity rates. Forecasts of hydraulic versus thermal production, the fuel efficiency factor used at Holyrood and the price of fuels contributes significantly to the costs of power generation.

#### **Hydraulic/Thermal Production**

As outlined in describing the Current Industry Structure (See pg. 17 of this decision), the bulk of NLH's generation capacity is supplied from hydro electric developments located at Bay D'Espoir, Cat Arm, Upper Salmon and Hinds Lake as well as thermal generation at Holyrood. The amount of hydro electric (hydraulic) power which can be generated is dependent on precipitation and water inflows into the reservoirs (hydrology). Estimates of water inflows are based on historic records of hydrology data. Wetter years than average provide NLH with the ability to produce more hydraulic power thereby requiring less thermal production at Holyrood. Of course, the opposite is true in the drier years.

The proportion of hydraulic versus thermal production affects the resulting cost of electricity. Hydraulic power is substantially cheaper to generate than thermal power and less hydraulic production in a given year leads to higher electricity costs. Determination of hydraulic and thermal production forecasts are important factors in setting the revenue requirements of NLH in the test year and hence affect electricity rates. Depending on actual hydraulic production, any variation from the test year forecasts requiring more or less thermal production at Holyrood is reflected in increases or decreases in thermal costs and is accordingly debited or credited to the Rate Stabilization Plan (RSP) whose balances are recovered from consumers. (See pg. 79 of this decision)

#### **Fuel Efficiency Factor**

The fuel efficiency factor is a measure of the thermal output in kWh from burning a barrel of fuel at Holyrood and is a reflection of the performance and reliability of the generating plant. Test year forecasts are established using trend analysis and consideration of recent or planned upgrades and/or outages in plant and equipment. A higher fuel efficiency factor compared to the test year will yield lower fuel consumption and hence lower electricity costs. The reverse is also true.

#### **Fuel Costs**

The actual price of No. 6 fuel versus the test year forecast has a direct impact on the cost of thermal production at Holyrood. Higher fuel costs contribute to higher electricity rates and vice versa. The actual costs of No. 6 fuel above or below the forecast costs used for the test year

base rate are accordingly reflected in the RSP to be recovered from consumers over a three year period.

The cost of diesel fuel directly impacts the cost of electricity generated by Isolated diesel systems.

## 2. Production

### i) Test Year Hydraulic Production Forecast

NLH uses the simple average of all the available years of hydrology records with adjustments for fisheries release and spills to determine the forecast hydraulic generation. Using this methodology NLH forecasts the hydraulic production for the 2002 test year to be 4,285 GWh, representing an “*average water year*”. NLH notes that the methodology used for forecasting hydraulic production is the same as used in previous rate referrals.

NP raised the following specific concerns about NLH’s hydraulic forecasting methodology:

1. Appropriate length of hydraulic record - Since NLH uses the entire available hydraulic record old data never gets dropped from the data set. It was suggested by NP that this reduces the effect of any trending in inflow and that the 30 year average for each year for the period 1988-2000 shows an increasing trend in historical inflows. (1<sup>st</sup> Supplementary Evidence, L. B. Brockman, pg. 2/7-8)
2. Reliability of pre-plant vs post-plant data - NLH treats the data series for both pre-plant and post-plant inflow data as a continuous series. It was acknowledged by NLH that the method used to determine inflows for the pre-plant data is different than that used to collect post-plant data (Transcript, Oct. 9, 2001 pg. 14/77-80). It was also confirmed by Mr. Henderson that NLH had not conducted a review to determine if the data sets are comparable or whether there are any concerns with the reliability of the pre-plant data. (Transcript, Oct. 10, 2001, pg. 37/58-65)
3. Inclusion of spills in the calculation - Since NLH would not expect to spill water at Bay d’Espoir during an average water year, which is forecast for the test year, NP suggests that these spills should not be included in the calculation of the test year spill estimate. (NP, Final Argument, pg. C-13)

NP proposes using a 30 year moving average as the basis for determining the test year hydraulic forecast. Use of this data set would increase the average hydraulic production forecast and consequently reduce the forecast thermal generation for 2002. It was suggested by Mr. Brockman that a 30 year moving average would better reflect technological improvements in data collection and more accurately represent recent historical flows. As well Mr. Brockman stated that a 30 year moving average “*is long enough to minimize volatility in the average but recent enough to reflect changes in inflow patterns.*” (1<sup>st</sup> Supplementary Evidence, L. B. Brockman, pg. 2/13-21) NP submitted Exhibit LBB-4 pointing to an increasing trend in inflows, which may be due to climate change or may relate to measurement problems with the older data.

A variance of 100 GWh in forecast hydraulic production would result in a difference of approximately \$3.3 million in revenue requirement for the test year. (NP-141) NP suggests using the 4,425 GWh proposed by Mr. Brockman as compared to NLH's revised forecast of 4,285 GWh. This lower forecast in hydraulic production would result in a reduction in revenue requirement of approximately \$4,600,000. (NP, Final Argument, pg. C-14)

NLH points out in final argument (pg.15) that any difference between the actual production and the forecast production goes into the RSP to be recovered over time so NLH is indifferent from a financial perspective. The use of a higher hydraulic forecast could, however, affect the RSP balances as projected in PUB-81. The real question is which forecast should be used in setting base rates.

The questions raised by NP regarding forecasted hydraulic production are valid and the Board sees merit in NP's position. No other direct evidence was entered to support the proposal to use a 30 year moving average other than the evidence brought forward through NP's cost of service witness, Mr. Brockman. The most compelling information for the Board is the information provided in U-Hydro # 17 which compares forecast and actual hydraulic energy production using both a 30 year moving average and the full historical average for the period 1950-2000. This evidence suggests to the Board that there may be an increasing trend in hydrology for the last 10 years which may not be captured using a 50 year average. The Board notes, however, that either method (NLH's long-term average or NP's 30 year moving average) would have underestimated the actual inflows for the period 1993-2000. (U-Hydro # 17, Figure 7) No other intervenor expressed a strong position on this issue during the hearing. In final argument the CA recommended the use of the 30 year moving average. The IC stated they did not object to the use of a 30 year moving average.

The Board accepts NP's concern that NLH has not conducted a review of the pre-plant and post-plant data to assess whether the full data set of inflows constitutes a continuous time series for the purposes of data analysis. (NP, Final Argument, pg. C-11) The Board also concurs with NP that technological improvements in data collection may justify using a more recent data set. It is the Board's opinion that a 30 year moving average will accurately represent recent historical flows for the purpose of forecasting the average annual hydraulic production. NLH has calculated the 30 year average annual hydraulic production, including 2000 data, as 4,425 GWh. (Supplementary Evidence, R. J. Henderson, pg. 2/17-18)

**NLH will be required to use the 30 year average annual hydraulic production of 4,425 GWh as the basis for the test year hydraulic forecast. The Board will also require NLH to commission an independent study into its current forecasting methodology to address the concerns raised in this hearing, including the issues of data reliability, long term trends and climate change. The terms of reference for this study should be filed with the Board in advance. The results of this study will be required to be filed with the Board as part of NLH's next rate application.**

**ii) Test Year Thermal Production Forecast**

NLH has forecast a total required energy supply for the 2002 test year of 6,625.60 GWh, comprised of:

<b>NLH Revised Forecast</b>	
Hydraulic production	4,271.67 GWh
Thermal generation	2,207.43 GWh
Energy purchased	146.50 GWh
<b>Total energy supply</b>	<b>6,625.60 GWh</b>

(2<sup>nd</sup> Supplementary Evidence, Oct. 31, 2001, H. G. Budgell, Schedule A)

NLH subsequently updated the forecast for hydraulic production to 4,285 GWh to reflect the year 2000 results.

As indicated previously, the Board will require NLH to use a 30 year moving average of 4,425 GWh as the forecast for hydraulic production for the test year. The energy forecast to be supplied from thermal generation will decrease, resulting in lower forecast No. 6 fuel costs for the 2002 test year. This will result in the following energy supply breakdown for the test year:

Hydraulic production	4,425.00 GWh
Thermal generation	2,054.10 GWh
Energy purchased	146.50 GWh
<b>Total energy supply</b>	<b>6,625.60 GWh</b>

**The 2002 test year forecast of thermal generation will be adjusted to reflect a forecast hydraulic production of 4,425 GWh.**

**iii) Holyrood Fuel Efficiency Factor**

The fuel efficiency factor is the expected kWh output from burning a barrel of oil (kWh/bbl) and, when applied to the forecast thermal generation, gives the expected number of barrels of oil required at Holyrood for the test year. A higher fuel efficiency factor will result in lower forecast fuel, and hence lower costs.

The fuel efficiency factor for Holyrood was last set in 1989 when the Board recommended that NLH use 605 kWh/bbl in forecasting revenue requirement. NLH had proposed using 600 kWh/bbl to be consistent with long term averages. The Board increased the efficiency factor at that time to recognize anticipated efficiencies resulting from NLH's efforts to modernize the units in Holyrood. The efficiency factor of 605 kWh/bbl has been used by NLH since then. NP-51 shows the average efficiency factor for 1992-2000 as 605.7 kWh/bbl, with a low of 579.3 kWh/bbl in 1994 and a high of 629.5 kWh/bbl in 1997.

For the 2002 test year NLH is proposing a fuel efficiency factor of 610 kWh/bbl and is forecasting thermal production at Holyrood to be 2,207 GWh which results in a forecast consumption of approximately 3.6 million barrels of No. 6 fuel.

The calculation of a fuel efficiency factor of 610 kWh/bbl is based on the average of the actual efficiency achieved at Holyrood for the period 1996-2000, as shown below: (NP-45; NP-51)

<b>Year</b>	<b>kWh/bbl</b>	<b>Thermal production</b>
1996	611.0	1,406.49
1997	629.5	1,530.85
1998	618.8	1,262.59
1999	577.1	919.15
2000	609.6	968.30
<b>Average</b>	<b>609.1</b>	<b>Not Applicable</b>

NLH states that the increase from 605 kWh/bbl to 610 kWh/bbl is intended to reflect efficiency improvements experienced at the Holyrood plant since an on-line efficiency monitoring system was placed in operation in 1995. (NLH Final Argument, Pg. 16/21-24) NLH outlined the changes implemented at the Holyrood generation facility undertaken to improve reliability, efficiency and environmental performance. (Pre-filed Evidence, R. Henderson, pg. 3-4/28-8)

NP submits that the test year fuel efficiency factor is too low and results in a fuel forecast and corresponding fuel costs for 2002 that are too high. (NP, Final Argument, pg. C-21) The fuel efficiency factor is calculated for a time period when hydrology was significantly above normal. Higher hydraulic production results in lower thermal production, and in turn a lower fuel efficiency factor at Holyrood. NP points to the fact that the highest actual efficiency factor for the 1996-2000 time period was 629.5 kWh/bbl in 1997, which was also the year of highest thermal production, at 1,531 GWh. The forecast thermal production for 2002 is 2,162 GWh (later revised to 2,207 GWh), approximately 40% higher than the highest thermal production achieved in 1997.

Mr. Brushett of GT suggested that the forecast 2001 thermal production may be more representative of an average hydrology year. Using the actual thermal production and achieved conversion rates for fuel to October 2001 GT estimated the efficiency factor for 2001 at 633 kWh/bbl. Since the forecast thermal production of 2,207 GWh for 2002 is for an average water year, and the thermal production forecast for 2001 is 2,184 GWh, Mr. Brushett suggested that 633 kWh/bbl may be a better proxy for the forecast efficiency at Holyrood. (Supplementary Evidence, GT, pg. 3/17-19)



In final argument NLH submits that the proposed fuel efficiency factor of 610 kWh/bbl best represents NLH's experience since 1996 when the efficiency improvements were put in place and that it is a reasonable factor to use on a go forward basis (NLH, Final Argument, pg. 17/24-27). They also point out that a fuel efficiency factor of 633 kWh/bbl does not address the potential variability in the efficiency factor and the resultant impact on NLH's net income. In cross-examination Mr. Brushett of GT acknowledged that if the actual results in 2002 are similar to 1999 NLH's net income could be reduced by \$6,600,000.

While the thermal production forecast by NLH for 2001 is comparable to that forecast for 2002 it is clear that 2001 was not an average water year. Mr. Henderson confirmed that the summer of 2001 was the third driest on record and resulted in NLH having to use more thermal generation to keep reservoir levels at minimum storage targets. (Transcript, Oct. 9, 2001, pg. 34/8-18) The Board does not feel that the 633 kWh/bbl would be a reasonable efficiency factor to use for a forecast average water year in 2002.

The period 1996-2000 used for calculating the fuel efficiency factor proposed by NLH does not cover "*average water years*" and includes some of the wettest years in NLH's hydraulic plant operation. This affects the operation of Holyrood since lower thermal production results in lower efficiencies, as shown for 1999. Similarly, drier years will result in higher thermal production and higher efficiencies, as happened in 2001. However it does not appear from the evidence that this relationship can always hold true either. Operating results for 2000, a relatively wet year, show a low thermal production of 968 GWh but an efficiency factor of 609.6 kWh/bbl. This is the same as the forecast efficiency factor of 610 kWh/bbl for 2002, even though the 2002 thermal generation is forecast to be 128% higher than 2000.

It also appears that an increase in the amount of energy purchased since 1998 has resulted in lower thermal production and lower fuel efficiency factors. NP-45 shows an increase in energy supply from power purchases of 193.98 GWh in 1998 from 1997. The hydraulic production in 1998 was 4262 GWh, close to that predicted for the 2002 "*average water year*" and the thermal production was 1263 GWh, with an efficiency factor of 618.8 kWh/bbl. Presumably the efficiency factor would have been higher had NLH generated the additional 194 GWh at Holyrood. This would also be true for 1999.

The Board does see an inconsistency in accepting forecast costs associated with average hydraulic conditions and then approving fuel costs based on an efficiency factor derived from experience under above average water conditions, as is the case for the last five years. Accordingly the Board is of the opinion that the forecast efficiency factor of 610 kWh/bbl is too conservative for the expected 2002 operating conditions and may result in higher forecast fuel costs for the test year than circumstances warrant. The Board also agrees that the efficiency factor for Holyrood should be adjusted upward to reflect increased operating efficiencies. This adjustment will result in some of the benefits of the investment in efficiency improvements being passed on to consumers in the form of lower fuel costs.

The challenge for the Board is to set an efficiency factor that will provide a fair approximation of fuel costs to be recovered from consumers for 2002 onwards (until the next rate hearing) while at the same time recognizing that NLH does not have control of the actual

hydrology conditions under which it will be operating. The Board is also cognizant of the impact on NLH's margin of any variability in the efficiency factor between that embedded in rates and actually realized.

**The Board finds that a fuel efficiency factor in the range of 615-620 kWh/bbl is warranted. To mitigate potential impacts on NLH's margin which, at 3%, is already below a normal market rate the Board will order an efficiency factor of 615 kWh/bbl. This efficiency factor will also be used for calculating hydraulic variation in the RSP.**

### 3. Fuel Costs

#### i) Price Forecasts

NLH retains the services of the PIRA Energy Group of New York to provide forecasts of fuel prices. PIRA is an internationally recognized company specializing in petroleum product market analysis and price forecasting.

At the time of this Application the forecast average price (Cdn) of No. 6 fuel was \$28.38/bbl which was later revised to \$25.91/bbl and confirmed by NLH in early January 2002. NLH's projection of the 2002 weighted average No. 6 fuel price of \$25.91 Cdn/bbl based on the PIRA forecast dated November 30, 2001 and NLH's most recent exchange rate forecast is shown below:

<b>Holyrood No. 6 Fuel Price Forecast (\$Cdn/bbl)</b>	
December 2001	22.70
<b>2002</b>	
January	24.30
February	25.20
March	25.20
April	25.70
May	25.80
June	25.50
July	25.70
August	26.50
September	26.60
October	26.80
November	26.60
December	27.10
2002 Weighted Annual Average	25.91
2003	26.55
2004	26.50
2005	27.50

(2<sup>nd</sup> Supplementary Evidence, R. J. Henderson, pg. 1)

NLH's projection for No. 2 diesel fuel prices for each of NLH's interconnected system standby plants is shown below. These prices are also based on the November 30, 2001 forecast of the PIRA Energy Group.

<b>No. 2 Fuel Price Forecast (\$/litre, Cdn)</b>					
	<b>December 2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>
<b>Holyrood &amp; St. John's</b>	0.288	0.337	0.349	0.354	0.370
Stephenville	0.299	0.348	0.360	0.365	0.381
Happy Valley GT	0.390	0.398	0.410	0.415	0.433
Roddickton & Hawkes Bay	0.372	0.386	0.398	0.403	0.421
St. Anthony	0.352	0.366	0.378	0.383	0.401

(2<sup>nd</sup> Supplementary Evidence, R. J. Henderson, pg. 2)

NP-219 indicates the average diesel fuel cost per litre for the Rural Isolated systems for 1992-2000 and the forecast for 2001-2005, as shown below:

<b>Diesel Fuel Unit Price Rural Isolated Systems</b>	
<b>Year</b>	<b>Avg. Fuel Cost per Litre (\$)</b>
1992	0.23
1993	0.23
1994	0.22
1995	0.23
1996	0.26
1997	0.28
1998	0.24
1999	0.26
2000	0.42

<b>Forecast Diesel Fuel Unit Price Rural Isolated Systems</b>	
<b>Year</b>	<b>Forecast Avg. Purchase Cost per Litre (\$)</b>
2001	0.44
2002	0.42
2003	0.41
2004	0.40
2005	0.42

These forecast diesel fuel prices are also based on PIRA's market forecast.

The forecast energy supply costs for NLH's Isolated Rural systems were revised to \$7,100,000 based on the November 30, 2001 forecast by PIRA. (2<sup>nd</sup> Supplementary Evidence, R. J. Henderson, pg. 3) This forecast cost includes the cost of purchased power and diesel fuel, with diesel fuel accounting for 90% of the total cost. (2<sup>nd</sup> Supplementary Evidence, H. Budgell, pg. 4) The forecast costs for Isolated diesel fuel expenses for 2002 reflects the fuel already purchased and stored for the winter season at plants that do not receive deliveries of fuel until the spring of 2002. (2<sup>nd</sup> Supplementary Evidence, R. J. Henderson, pg. 3)

Although the updated fuel forecast filed by NLH did not specifically identify the Isolated diesel system unit fuel prices, U-Hydro # 28 indicated a revised forecast unit price as of October 1, 2001, based on information concerning diesel fuel available up to the end of August 2001, of \$0.455/litre. NLH also indicates in U-Hydro # 28 that the actual comparable price for November 2001 was \$0.40-\$0.41/litre. The Board was not presented with any evidence to suggest that the pricing forecasts for No. 6 fuel and No. 2 fuel (diesel fuel) were not reasonable

**The Board accepts the 2002 test year forecasts for fuel prices as filed.**

**ii) Purchasing**

NLH currently has a volume only contract for 10 million barrels of No. 6 fuel oil shipped to the Holyrood facility. This contract has been in place since 1997 and was awarded based on competitive bids. The price NLH pays for No. 6 fuel under this contract is based on the average New York Harbour price in the month a delivery is received. (Pre-Filed Evidence, R. J. Henderson, pg. 14/10-17). Under the contract NLH is required to provide firm shipment dates and delivery requirements one month in advance of the fuel shipment with estimates for future shipments. The estimates take into consideration the need to balance oil deliveries with current rainfall, storage capacity and best estimates of future oil price movement. (Transcript, Oct. 10, 2001, pg. 24/24-99) NLH confirmed that, as of June 2001, it had received 6.1 million barrels of No. 6 fuel under this contract, with further shipments received since. (Transcript, Nov. 20, 2001, pg. 35/43-45)

Other factors that NLH has to consider in planning fuel oil deliveries are the capacities of the various storage tanks located at Holyrood and at its diesel generating sites, as well as the impact on shipping schedules caused by ice blockages. Holyrood has a storage capacity of 840,000 barrels and receives deliveries in quantities between 250,000 and 300,000 barrels. According to IC-24 (Rev), Holyrood consumes between 1.3 and 3 million barrels of No. 6 fuel per year. Depending on rainfall and demand, the amount of storage is crucial especially during the period November to March.

In purchasing No. 6 fuel, NLH does not attempt to take advantage of market price swings. Under cross-examination by the IC Mr. Osmond agreed that no detailed analysis has been carried out on "*the cost of storage and the carrying costs of inventory against the potential benefits of purchasing in advance, from a price point of view.*" (Transcript, Nov. 20, 2001, pg. 30/17-22) The arrangement NLH has with its supplier is that the price is determined using an average for the month in which it takes delivery. Only on rare occasions can NLH arrange for the purchase of fuel to take advantage of low prices.

The IC argued that there was little strategic purchasing or attention by NLH in obtaining the best price for its No. 6 fuel requirements. The IC submitted that the lack of a coordinated approach by management to minimize fuel costs may indicate that NLH is not receiving the best price for its fuel purchases. Consequently the IC recommend that the Board direct NLH to develop an integrated, strategic approach to fuel purchases, pointing out that a 1% reduction in forecast No. 6 fuel costs will result in savings of \$1,000,000 per year.

The CA stated that NLH had not developed a clear oil purchasing strategy aimed at reducing its substantial annual fuel costs. The CA observed as well that there remains some uncertainty as to which department at NLH is ultimately responsible for the strategic purchasing of fuel to ensure that the lowest possible price is obtained. Furthermore, in commenting on NLH's storage capacity for No. 6 fuel at Holyrood, the CA argued that the Board should require NLH to demonstrate that its oil storage capacity is adequate.

Fuel represents one-third of all NLH's costs of operation. As was pointed out by the intervenors NLH should acknowledge and implement appropriate controls and policies with respect to fuel purchasing and clearly assign and document management accountability throughout each step of the purchasing procedures.

With respect to diesel fuel, NLH is currently involved in the early years of a five year contract that is public tendered. (Transcript Oct. 5, 2001, pg. 27/30-32). No additional information was offered into evidence by NLH on purchasing practices for diesel fuel and no intervenors commented specifically on this issue.

### **Oil Price Hedging**

During the past couple of years NLH operated a "*phantom hedging program*" in an effort to determine the impact of such a program. The research indicated that hedging generally costs between 5¢ and 10¢/barrel (US) and that the value of hedging has to be measured from a stability or insurance perspective. NLH stated that: "*The goals of any oil hedging program would be to protect Hydro's customers from adverse, unexpected and random price fluctuations, that are short-term in nature and provide a degree of price certainty.*" (Pre-filed Evidence, D.W. Osmond, pg. 17/23-25)

NLH concluded that, since its customers are already afforded a degree of stability by virtue of the rate stabilization plan, it would not implement a hedging program at this time. NLH does state however that: "*there is some merit in a continued monitoring of an 'active' approach to oil price hedging to assess whether the additional risks are worth the benefits to consumers in terms of protection from market volatility.*" NLH expects that a final determination on the appropriateness of an oil hedging program could be reached in advance of its next rate application. (U-Hydro # 31, pg. 3)

The CA argued that there was sufficient evidence in the form of positive results from NLH's oil hedging experiment to require NLH to either implement such a program or to provide a detailed explanation as to why such a program cannot be justified.

Dr. Wilson observed that, despite the importance of No. 6 fuel oil prices, the Board has received little information concerning the forecasts adopted by NLH and the conditions under which NLH might adopt a hedging strategy. He further observed that, although NLH has rejected the implementation of a hedging program at this time, both the nature of its analysis and the conditions under which such strategy would be adopted remain unexplained. (Pre-filed Evidence, Dr. J. W. Wilson, pg. 34)

**The Board will require NLH to file by December 31, 2002 a statement of policies and procedures outlining a coordinated, integrated and strategic approach to fuel purchasing. The statement should address managerial accountability for fuel purchasing along with consideration of such issues as an oil hedging program and the adequacy of existing storage capacity.**

### III. REVENUE REQUIREMENT

#### 1. Introduction

NLH requested approval of a revenue requirement of \$323,261,000 for the 2002 test year, modified by Supplementary Evidence and final argument as shown in Table 1 below. The Board considered these revenue requirement items and will deal with each separately. Some smaller uncontested costs have been grouped as explained later.

<b>Table 1</b>			
<b>Newfoundland and Labrador Hydro</b>			
<b>Revenue Requirement – Test Year 2002</b>			
	<b>As Filed</b>	<b>Revised</b>	<b>Subsequent</b>
	<b>\$(000)'s</b>	<b>October 31, 2001<sup>(1)</sup></b>	<b>Revisions</b>
		<b>\$(000)'s</b>	<b>\$(000)'s</b>
Depreciation	31,790	31,665	31,665
Fuel			
No. 6 Fuel	100,585	104,175	<b>92,146<sup>(2)</sup></b>
Rate Stabilization Plan	(25,490)	(26,819)	<b>(14,790)<sup>(2)</sup></b>
Other fuels	7,193	7,679	<b>7,379<sup>(3)</sup></b>
	82,288	85,035	84,735
Power purchased	15,266	15,100	15,100
Other costs			
Salaries	61,773	62,426	62,426
System equip.maint.	16,763	16,763	16,763
Insurance	848	977	977
Transportation	1,923	1,923	1,923
Office supplies	1,939	1,939	1,939
Bldg. Rentals & maint.	626	626	626
Professional services	4,340	5,340	<b>4,340<sup>(4)</sup></b>
Travel	2,375	2,375	2,375
Equipment rentals	1,558	1,558	1,558
Miscellaneous	4,458	4,458	<b>4,398<sup>(5)</sup></b>
Loss on disposal	791	890	890
	97,394	99,275	98,215
Allocations			
Capitalized expenses	(5,722)	(5,722)	(5,722)
C.F.(L) Co.	(1,910)	(1,910)	(1,910)
	(7,632)	(7,632)	(7,632)
Interest	93,584	91,821	91,821
Return on Equity	9,610	7,997	7,997
<b>Revenue requirement</b>	<b>322,300</b>	<b>323,261</b>	<b>321,901</b>

<sup>(1)</sup> Schedule IA, J. C. Roberts, October 31, 2001

<sup>(2)</sup> Estimated No. 6 fuel based on R. J. Henderson's testimony of revised fuel forecasts (2<sup>nd</sup> Supplementary Evidence, R. J. Henderson; Transcript, Jan 9, 2002, pg. 15/41-56)

<sup>(3)</sup> Reduced by \$300,000 in R. J. Henderson's testimony of revised fuel forecast (2<sup>nd</sup> Supplementary Evidence, R. J. Henderson, pg. 3; Transcript, Jan. 9, 2002, pg. 16/51-56)

<sup>(4)</sup> Reduced by \$1,000,000 by NLH during final submissions to reflect NLH's decision to not defer hearing costs to the test year. (Transcript, Jan. 28, 2002, pg. 7-8/99-30)

<sup>(5)</sup> Reduced by \$60,000 by NLH to reflect decision to remove Bay D'Espoir street lighting from revenue requirement. (Transcript, Jan. 28, 2002, pg. 8/31-48)

## 2. Depreciation

Depreciation is the portion of previously capitalized costs that are included in revenue requirement. The amount of depreciation is based on a detailed analysis of each asset's capital cost and estimated useful life. NLH is proposing a depreciation cost of \$31,665,000 be included in the test year revenue requirement.

In December of 1986 KPMG completed a Depreciation Policy Study for NLH which formed part of the 1988 rate referral and was accepted by the Board. The study was updated in October 1998 by KPMG. NLH has filed the updated study with this Application for approval.

This latest study recommends a number of changes including estimating and accounting for the net salvage value of assets, changing the service life of assets and the need for condition surveys of various assets. These recommendations have been accepted by NLH and incorporated into its financial records. Mr. Brushett of GT agreed that the depreciation allowances included in the revenue requirement are reasonable and that NLH had adhered to the recommendations in the study. (Transcript, Jan. 9, 2002, pg. 8/62-66)

NLH also undertook condition surveys of the transmission lines affected by the Avalon upgrade to determine the potential impact on their original estimated service lives. These condition surveys recommended that these transmission lines have revised service lives of 50 years once the upgrade is complete. (NLH, Final Argument, pg. 10) NLH has requested, as part of this Application, that the Board approve the extended service lives for these transmission lines as of 2002. This issue was not contested by the intervenors.

NP recommended that the depreciation allowance be adjusted to reflect any reduction in the 2002 forecast capital expenditures. (NP, Final Argument, pg. C-52) No other intervenors raised any issues about the depreciation study or the methods used by NLH to account for depreciation.

**The Board accepts the depreciation study and approves the changes in depreciation policies as filed by NLH. The depreciation expense proposed by NLH will be required to be adjusted to reflect the Board's decisions on NLH's 2002 capital budget. NLH will be required to submit its next depreciation study in 2005.**

**The Board will approve the extension of the service lives for the transmission lines affected by the Avalon upgrade program as proposed by NLH.**



### 3. Test Year Fuel Costs

NLH's proposed a revenue requirement for the 2002 test year fuel costs of \$85,035,000, as shown below. This revenue requirement was later revised in Supplementary Evidence to reflect updated forecasts of fuel costs.

<b>NLH REVENUE REQUIREMENT – FUEL</b>			
<b>TEST YEAR 2002</b>			
<b>\$(000)'s</b>			
	<b>As Filed</b>	<b>October 31, 2001</b>	<b>R. J. Henderson December 12, 2001</b>
No. 6 Fuel	100,585	104,175	92,146 <sup>(1)</sup>
Diesel fuel	6,323	6,808	6,508
Other fuel costs	870	871	871
Total fuel costs	107,778	111,854	99,525
Rate Stabilization Plan (RSP)	(25,490)	(26,819)	(14,790) <sup>(1)</sup>
<b>Revenue Requirement</b>	<b>82,288</b>	<b>85,035</b>	<b>84,735<sup>(1)</sup></b>

<sup>(1)</sup> Estimated based on R. J. Henderson's testimony of revised fuel forecasts  
(Transcript, Jan. 9, 2002, pg. 16)

#### i) No. 6 Fuel

As can be seen the cost of No. 6 fuel to be burned at the Holyrood generating station accounts for over 92% of the total forecast fuel costs for 2002. NLH is proposing to recover No. 6 fuel costs in the test year based on \$20 Cdn/bbl with the difference accounted for in the RSP as described below. The actual calculation of fuel costs in revenue requirement is directly related to the forecast thermal production to be supplied by Holyrood in 2002. The forecast thermal production depends on NLH's forecast of hydraulic production, the fuel efficiency factor of the Holyrood plant (to estimate the amount of fuel needed), and the price used to calculate the cost of No. 6 fuel. The Board has previously addressed the issues of hydraulic and thermal production forecasts and the fuel efficiency factor at Holyrood. The following Section deals with the price of No. 6 fuel to be used in calculating fuel costs contained in the revenue requirement.

NLH is proposing that the cost of No. 6 fuel to be included in rates be set at \$20 Cdn/bbl and not at the average forecast price of \$25.91 Cdn/bbl set out in Forecasting: Production and Fuel Costs. NLH proposes to book the difference between the actual price and the embedded price of \$20 Cdn/bbl in the RSP to be recovered at a later time. NLH is proposing this approach because of the magnitude of rate increase that would be required with a higher fuel price. Table 2 compares the rate impacts of using test year No. 6 fuel costs of \$20 Cdn/bbl and \$28 Cdn/bbl.

<b>Table 2</b>			
<b>Impact of Test Year Fuel Price on Rates for 2002</b>			
	<b>May 31, 2001 Original Application</b>		<b>October 31, 2001 Revision</b>
	<b>Rate Increase<sup>(1)</sup> (\$20/bbl) %</b>	<b>Rate Increase<sup>(2)</sup> (\$28/bbl) %</b>	<b>Rate Increase<sup>(3)</sup> (\$20/bbl) %</b>
NP base rate	6.7	16.0	6.4
Consumer base rate	3.7	9.0	3.5
NP RSP mill rate	5.9	5.9	6.7
Consumer RSP mill rate	3.4	3.4	3.8
Industrial base rate	10.4	23.0	10.0
Industrial RSP mill rate	7.4	7.4	6.1
<b>Total NP increase</b>	<b>12.6</b>	<b>21.9</b>	<b>13.1</b>
<b>Total Consumer increase</b>	<b>7.1</b>	<b>12.4</b>	<b>7.3</b>
<b>Total Industrial increase</b>	<b>17.8</b>	<b>30.4</b>	<b>16.1</b>

<sup>(1)</sup> Pre-filed Evidence, D. W. Osmond, pg. 3/9-16

<sup>(2)</sup> Pre-filed Evidence, D. W. Osmond, pg. 2-3/28-3

<sup>(3)</sup> 2<sup>nd</sup> Supplementary Evidence, D. W. Osmond, pg. 1, Schedule A

Using \$28/bbl versus the \$20/bbl proposed by NLH (October 31, 2001, Revised) would mean an additional rate increase of 8.8% to NP, 5.1% to consumers and 14.3% to IC on top of that already proposed by NLH in this Application.

In final argument (pg. 12) NLH again reiterated its position that, in light of the impact it had on base rate changes, \$20 Cdn/bbl was still an appropriate number to use in determining No. 6 fuel costs, with the difference between the \$20 and actual prices paid accounted for through the RSP. NLH agreed that this remained a matter of judgment and deferred to the Board the issue of whether the price used in base rates should be higher than \$20 Cdn/bbl. No intervenor suggested the price should be lower than \$20 Cdn/bbl.

While the Board is cognizant of the impact of using the forecast fuel prices in setting rates, it is not convinced that the proposal by NLH to use a lower price than forecast is the best approach in the current circumstances. The Board is required to set rates based on forecast costs for a test period and believes that the most prudent course of action is to set the fuel price at or near the price forecasted for the test year. The Board believes that this is the only way to avoid the current situation of having an ever increasing balance in the RSP with no short term hope of recovery. This approach is also consistent with the generally accepted regulatory principle of matching costs and revenues. The Board also believes it is important to maintain the relationship between the price of fuel and electricity rates so that correct price signals are reflected in rates to consumers.

**The forecast price for No. 6 fuel, as set out by NLH in Table 1 on page 1 of R. J. Henderson's 2<sup>nd</sup> Supplementary Evidence, which shows a 2002 weighted annual average price of No. 6 fuel of \$25.91 Cdn/bbl, will be used in the 2002 test year costs for No. 6 fuel.**

The Board recognizes that this decision will result in a significant increase in NLH's revenue requirement for fuel costs and hence impact electricity rates accordingly. The Board has already ordered that the 2002 thermal production forecast be reduced which will result in a lower forecast quantity of No. 6 fuel to be burned at Holyrood. In addition the Board has ordered the fuel efficiency factor for the Holyrood plant be increased from 610 kWh/bbl as proposed by NLH to 615 kWh/bbl, which will also result in a calculation of lower fuel consumption for the test year.

Based on the evidence and information before it, the Board has attempted to assess the net impact on revenue requirement of the decisions outlined above and has calculated the following estimated impacts on fuel costs:

<b>Estimated Impact on Revenue Requirement</b>	
Increase in No. 6 fuel costs at forecast price	\$13,674,000
Decrease in thermal production	(5,212,000)
Increase in efficiency factor	(586,000)
<b>Total</b>	<b><u>\$7,876,000</u></b>

The impact that fuel costs would have on the revenue requirement would result in higher increases in rates than proposed by NLH. The estimated increases in 2002 rates (including RSP mill rate adjustments) for NP and IC as a result of the Board's decision above as compared to the rate increases proposed by NLH are as follows:

<b>Customer</b>	<b>Rate Impacts NLH Application October 31, 2001 (%)</b>	<b>Estimated Rate Impacts of Board's Decision on Fuel Costs (%)</b>
NP	13.1	15.9
Consumer	7.3	8.9
IC	16.1	19.8

The Board will have to assess the impact of these decisions on rates to NLH's customers and to consumers in general, together with other decisions relating to the overall revenue requirement. The Board would prefer to address the rate impact of using forecast fuel costs in the test year revenue requirement directly rather than defer a portion of these forecast fuel costs for the 2002 test year through the RSP as proposed by NLH.

**ii) Diesel Fuels**

The second largest component of NLH's fuel expense category is diesel fuel. The forecast 2002 test year cost is forecast to be \$6,808,000. (1<sup>st</sup> Supplementary Evidence, J. C. Roberts, Schedule 1A) In the revised fuel forecasts filed by NLH in December 2001 Mr. Henderson advised that the test year forecast costs could be reduced by \$300,000 as a result of the updated forecast. (Transcript, Jan. 9, 2002, pg. 16/51-58)

No issues with respect to the diesel fuel price were raised by the intervenors and the Board accepts the test year costs as reasonable.

**The Board accepts the diesel fuel costs of \$6,508,000 for the 2002 test year.**

**iii) Other Fuel Costs**

A total of \$871,000 is included for other fuel costs in the test year fuel costs as outlined below:

Additives and Indirects	\$178,000
Environmental Fee	\$124,000
Ignition Fuel	\$123,000
Gas Turbine Fuel	\$446,000
<b>Total</b>	<b><u>\$871,000</u></b>

**The Board accepts the Other Fuel Costs of \$871,000 for the 2002 test year.**

**4. Power Purchased**

NLH's purchased power expense for the test year is \$15,100,000. (Pre-filed Evidence, J. C. Roberts, Schedule 1A, pg. 1 of 4) This amount represents approximately 5% of NLH's total costs for the test year and represents a slight decrease from 2000-2001. Also included in purchased power is an amount of \$1,300,000 which is paid to Abitibi Consolidated in Stephenville under a contract giving NLH the right to interrupt a portion of Abitibi Consolidated's power supply should NLH need the power to meet its own demand.

Neither NLH's nor NP's systems are connected to the North American Power Grid. As stated by NLH in response to NP-164, this limits options as they relate to purchased power in the event of abnormal load requirements.

In addition to its own generation, in order to meet its supply requirements, NLH has long standing arrangements to purchase energy from Corner Brook Pulp and Paper Limited and Abitibi Consolidated at Grand Falls when it is available and cost effective.

Since the fall of 1998 NLH has been purchasing energy on the island from two Non-Utility Generators (NUGS) operating at Star Lake and Rattle Brook. NLH also has an interruptible load contract with Abitibi Consolidated at Stephenville and can call upon NP to

operate its stand-by gas turbines and diesel units to meet peak loads. Long-term contracts are in place with all of these suppliers whose output is used to meet peak demand or emergency requirements.

In Labrador a purchase agreement with CF(L)Co allows NLH to meet the major portion of power and energy requirements for the Labrador Interconnected system.

Also included in the category of purchased power is the cost associated with the purchase of secondary energy for the L'anse au Loup system from the Hydro-Quebec Lac Robertson plant.

NLH's forecast purchased power costs were not challenged by the intervenors.

**The Board accepts purchased power costs in the amount of \$15,100,000 for the 2002 test year.**

## **5. Other Costs**

### **i) Certain Other Costs Consolidated**

The major cost items under revenue requirement were explored extensively by the Board and will be examined and decided separately. Certain other cost items listed below received little or no attention by intervenors and are being dealt with as a group.

Insurance	\$977,000
Transportation	1,923,000
Office supplies	1,939,000
Building rentals & maintenance	626,000
Equipment rentals	1,558,000
Loss on disposal	<u>890,000</u>
<b>Total</b>	<b><u>\$7,913,000</u></b>

The Board has insufficient evidence on which to order a specific adjustment on these costs and is of the view that they can be appropriately considered within the context of a general productivity allowance.

**Certain other costs (insurance, transportation, office supplies, building rentals and maintenance, equipment rentals and loss on disposal) as proposed by NLH for the 2002 test year are accepted subject to any reduction by NLH resulting from the productivity allowance set by the Board.**

**ii) Salaries and Fringe Benefits**

NLH is requesting approval for an expenditure of \$62,426,311 for salaries and fringe benefits in the revenue requirement for the 2002 test year as shown below:

Salaries Permanent	\$44,876,638
Salaries Temporary	5,293,516
Overtime	2,615,424
Directors Fees	62,000
Fringe Benefits	6,359,483
Labrador Travel Benefits	106,180
Group Insurance	1,680,500
Employee Future Benefits	2,432,570
Less Vacancy Credit	<u>(1,000,000)</u>
<b>Total Salary Cost</b>	<b><u>\$62,426,311</u></b>

(NP-4; 2<sup>nd</sup> Supplementary Evidence, J.C. Roberts, Schedule 1A)

Salary costs represent approximately 63% of NLH's total other costs. The issues raised during the hearing included the level of permanent salaries and the use of a vacancy credit, the change in accounting for employee future benefits, and accounting for overtime. The treatment of salaries included in capitalized expenses is dealt with on pg. 75 of this decision. The remaining issues are considered following.

Table 3 shows a comparison of total salary costs, kWh of energy produced and cost per kWh from 1997 to the 2002 test year.

<b>Table 3</b>						
<b>Comparison of KWH Produced to Gross Salaries</b>						
<b>1997 to 2002</b>						
<b>Year</b>	<b>Salaries<sup>(1)</sup></b> <b>\$</b>	<b>Increase over</b> <b>1997</b> <b>%</b>	<b>KWH</b> <b>Produced<sup>(2)</sup></b>	<b>Increase</b> <b>over 1997</b> <b>%</b>	<b>Cost Per</b> <b>KWH</b> <b>\$</b>	<b>Increase</b> <b>over 1997</b> <b>%</b>
1997	51,863		6,197,000		0.00837	
1998	54,904	5.9	5,556,000	-10.3	0.00988	18.0
1999	57,069	10.0	5,756,000	-7.1	0.00991	18.5
2000	61,267	18.1	6,025,000	-2.8	0.01017	21.5
2001E*	61,941	19.4	6,172,990	-0.4	0.01003	19.9
2002F*	62,426	20.4	6,479,100	4.6	0.00963	15.1

(\*E-estimated; F-forecast)

<sup>(1)</sup> NP-8 (a); Pre-filed Evidence, J. C. Roberts, Schedule 1A, pg. 1

<sup>(2)</sup> CA-101, 2002 Annual Report, pg. 40; Supplementary Evidence, H. Budgell, Schedule A

The figures reflect an increase in the salary cost per kWh in each year when compared to 1997. Increases in 1998 through 2000 have occurred despite reductions in kWh produced over 1997. The Board notes the decreased trend estimated for 2001 and forecast for the 2002 test year. The Board, however, is concerned with the observed inconsistencies in the above analysis.

### Salaries (Permanent)

Table 4 shows a reduction of 61 permanent filled positions from 1997 to 2002. The total salaries to be paid are projected to increase by 14.1% with the average employee salary increasing by 22.6% during this period.

<b>Table 4 Average Permanent Salary 1997 to 2002</b>					
<b>Year</b>	<b>Total Salaries Paid<sup>(1)</sup> \$</b>	<b>Increase over 1997 %</b>	<b>Filled Permanent Positions<sup>(2)</sup></b>	<b>Average Salary \$</b>	<b>Increase over 1997 %</b>
1997	38,440,452	-	887	43,338	-
1998	39,330,387	2.3	868	45,312	4.6
1999	40,444,741	5.2	859	47,084	8.6
2000	41,061,053	6.8	853	48,137	11.1
2001	42,620,061	10.9	826	51,598	19.1
2002	43,876,638	14.1	826	53,119	22.6

<sup>(1)</sup> NP-8(a)

<sup>(2)</sup> GT 2001 General Rate Hearing Report, Exhibit 3

In response to questioning by Chair Noseworthy Mr. Wells stated:

*“...to those things that we do control and for which we are accountable for our actions, we should be subject to scrutiny, because we don’t have any competition in that sense, and that’s why I mentioned the three pillars Hydro works on.....Those items that we can control, all that’s subject to scrutiny and we will have to stand on our record and prove to you that we’re really not employing any more than we should, or that our costs are reasonable in those items over which we have control.....”* (Transcript, Sept. 28, 2001, pg. 27/84-88; 95-100)

The Board notes the difficulty in measuring the performance and efficiency of NLH salary expenditures. The Board acknowledges NLH’s implementation of the full time equivalent (FTE) method of accounting for the number of employees and recognizes that this will provide a useful tool for measuring performance regarding future staffing levels. At the present time, however, the Board also notes the apparent upward trend in salary costs despite the declining number of permanent staff and slow energy growth.

**The Board finds that any reduction in salary costs to be incorporated in the 2002 test year is best managed by NLH within the scope of the vacancy credit adjustment and in the application of the productivity allowance set by the Board.**

### **Vacancy Credit**

The use of a vacancy credit by NLH is due to the prior method used to equate salaries with the number of employees. The Board again acknowledges the use of the FTE method and notes for this reason the vacancy credit will not be necessary in future years.

For the test year NLH budgeted its permanent salaries on the basis of its permanent staff complement. In such a large organization there are always permanent positions that become vacant throughout the year. This results in salary savings because of the period of time which elapses between the date of vacancy and the date of hiring the replacement. For the test year NLH estimates that 2½% (approximately \$1,000,000) of total permanent salaries is a reasonable estimate of the allowance for vacancies.

Over the period 1997 to 2000 NLH has over budgeted salaries by an average of 4%. (GT 2001 General Rate Hearing Report, pg. 25) NP in final argument (pg. C-34) proposed that a 4% vacancy allowance should therefore be used in the test year.

NLH has not convinced the Board that a 2½% vacancy allowance is adequate and reflects recent experience. The Board finds in the circumstances that a vacancy credit in the amount of \$1,500,000 should be used in the test year 2002. This is \$500,000 more than proposed by NLH.

**The Board will order NLH to reduce salaries and fringe benefit expenses for the 2002 test year by an additional \$500,000 to reflect a higher vacancy credit.**

### **Executive Incentive Plan**

During the hearing NLH provided information on an executive incentive plan being piloted for Executives and Senior Management. NLH provided details of the plan in U-Hydro # 12, pg. 1:

*“During 2000, the Compensation Committee of the Board of Directors of Newfoundland and Labrador Hydro considered the introduction of a performance based incentive plan for members of the Executive and Senior Management. Hay Management Consultants, a human resources consulting group, was retained to assist with the development of an incentive plan similar in concept to those in place at other Atlantic Canada electric utilities. In December 2000, the Board of Directors, on the recommendation of the Compensation Committee, approved the implementation in 2001 of a pilot project for the five members of the Executive and twelve Directors (heads of departments). The plan is composed of both corporate performance objectives and individual or departmental performance objectives.”*



The areas of responsibility selected for the 2001 pilot project were financial performance, improved system reliability and strategic planning. (U-Hydro # 12, pg. 2/4-5)

Depending on the experience with this type of plan, it may be modified or extended to other members of management in future years. As it is a pilot project the cost of the incentive plan is not included as a regulated expense in the 2002 cost of service. (U-Hydro # 12, pg. 1/26-29)

The Board recognizes the importance of NLH connecting Executive compensation to a performance based incentive plan.

### **Employee Future Benefits**

Employee future benefits represent a liability for a retiring allowance to qualifying employees and the cost of health, dental and life insurance for retired employees. Generally Accepted Accounting Principles (GAAP) as articulated by the Canadian Institute of Chartered Accountants (CICA) recommend that, effective January 1, 2000, employee future benefits should be accounted for on an accrual basis in a company's financial statements. Prior to this change NLH accounted for the cost of employee future benefits on a "*pay as you go*" or cash basis, which requires the financial statements to reflect the actual funds disbursed on behalf of employee future benefits. The accrual method requires the financial statements to reflect the estimated cost incurred during the financial reporting period.

NLH has requested permission to change its method of accounting for employee future benefits from a cash to an accrual method effective January 1, 2000. The actuarial accrued balance of employee future benefits as of December 31, 1999 is estimated at \$21,200,000. (Pre-filed Evidence, K. McShane, pg. 13/29) NLH is proposing to write-off this balance against prior period earnings and will not attempt to recover this amount from ratepayers. On a go forward basis NLH will make a charge against earnings for the annual actuarial cost of employee future benefits. In the 2002 revenue requirement this is included in salaries and fringe benefits at a cost of \$2,244,000. This was further revised to \$2,433,000 based on an additional \$189,000. (J. C. Roberts, Schedule 1A, pg. 3, Note 23; NP-4, pg. 2) The actual cash disbursements during the period will be charged against the estimated liability. The liability for employee future benefits is treated as no-cost capital in the calculation of the weighted average cost of capital. (Pre-filed Evidence, K. McShane, pg. 13/16-21)

Mr. J. T. Browne testified that a utility could conform to GAAP and adopt the accrual method of recording employee future benefits for financial reporting purposes but use the cash method for ratemaking purposes. (Transcript, Nov. 1 2001, pg. 36/82-91) NP presently uses the cash method for ratemaking purposes and recommends that the Board adopt a similar method for NLH. NP estimates that the use of the accrual method will result in an additional cost in the test year of \$1,000,000. (Transcript, Nov. 15, 2001, pg. 8/16-18; NP, Final Argument, pg. C-26)



**iv) Professional Services**

Professional service costs in the test year total \$4,340,000 and consist primarily of consulting fees involving legal, audit, software technology and maintenance as well as annual Board assessments. This amount was later revised to \$5,340,000 to reflect a decision by NLH to defer a portion of the hearing related costs into the test year. During final submissions NLH informed the Board that, in order to keep the revenue requirement for 2002 as low as possible, it was changing its position on the issue of deferral of rate hearing costs and would now be absorbing an amount of \$1,000,000 in 2001 to cover NLH's incremental internal costs, the estimated costs of the Board and the costs of the CA. (Transcript, Jan. 28, 2002, pg. 8/9-15) This reduces the proposed test year cost for professional services to \$4,340,000.

In its 2001 General Rate Hearing Report (pg. 34) GT determined that the professional services expense in the test year represents an increase of 65% from 1997 to 2002 and suggested that additional information be obtained. Under cross-examination Mr. Henderson testified that the increase in professional services expense was as a result of more use of professional services by the information systems department, the partnering agreements in place at the Holyrood thermal station and costs related to a study into equal billing and other pay methods carried out in the finance department. (Transcript, Oct. 11, 2001, pg. 31-32/79-86; pg. 32/13-17)

Mr. Roberts stated under cross-examination that he was satisfied that there are sufficient controls in place to ensure that all items going forward in the budget for professional services are given an adequate screening by the various management levels at NLH and its management committee. However, when questioned by Board Counsel he was unable to be very specific about the controls in place by his department to screen budget expense proposals. (Transcript, Nov. 16, 2002, pg. 16-17) Mr. Roberts stated:

*“Well, I may be raising it in a different vein. I may be raising it from the point of, to management saying, for your information, included in this year's cost is this project that you should be aware of, and I may express my own opinion to management committee, which I will do, as to whether or not, you know, if I have an opinion on it whether or not I think, in my mind, there may be an option or an alternative to delay or whatever.”*  
(Transcript, Nov. 16, 2001, pg. 17/8-15)

The intervenors did not offer any evidence to challenge the costs of professional services as incurred by NLH or as forecast in the test year. NLH also did not provide any evidence that the professional services expenses are justified in the way of demonstrative results or improved efficiencies. For example, a comparison of the costs at Holyrood Thermal Station using partnering agreements with the equipment manufacturers compared with the previous maintenance practices would have proved helpful to the Board. Similarly, the benefits of the increased professional services expense in the information services department was not confirmed by any evidence of cost saving or efficiency improvements.

The Board recognizes the increasing trend in professional services costs leading into the test year but has insufficient evidence to order a specific reduction in the costs. The Board will request its financial consultants to seek additional justification of these costs as part of its next

financial review. The Board is of the view that any reduction in professional services expense is best achieved within the context of a general productivity allowance.

**Professional services costs as proposed by NLH for the 2002 test year are accepted subject to any reduction by NLH resulting from the productivity allowance set by the Board.**

v) **Travel**

Travel expenses generally were not challenged by the intervenors except insofar as the amount included for spousal travel. Spousal travel is an item that gets raised at most general rate hearings.

GT, in its 2000 review of NLH, stated that, in its opinion, it was not prudent to include expenditures of this nature in the revenue requirement. Under questioning by Board Counsel, Mr. Brushett of GT offered the qualification that spousal travel “*to CEA conferences and conferences such as that*” was really what he was referring to in his report. (Transcript, Jan. 9, 2002, pg. 6/32 – 33) Mr. Roberts, when questioned as to why GT’s comments on spousal travel in recent annual review reports have gone unheeded by NLH, responded by saying that “*we haven’t made an effort to identify those costs and eliminate them*” (Transcript, Nov. 16, 2001, pg. 20/20-22)

The Board has not been presented with any policy by NLH indicating what the procedure is for obtaining approval of expenses such as spousal travel. The Board is also not aware of policies and procedures adopted by NLH to cover matters such as this. The Board does not accept spousal travel as a regulated expense.

**Travel costs as proposed by NLH for the 2002 test year are accepted subject to an reduction by NLH resulting from the productivity allowance set by the Board. NLH will be directed to exclude spousal travel costs from regulated expenses. NLH will also be required to file its policies and procedures for employee travel with the Board.**

**vi) Miscellaneous Costs**

Miscellaneous costs for the 2002 test year are summarized as follows (GT 2001 General Rate Hearing Report, pg. 32):

Staff Training	\$841,000
Donations/Corporate Promotion	193,000
Sundry costs	84,000
Diesel fuel Hydro	94,000
Demand side management	45,000
Employee expenses	340,000
Collection fees	25,000
Bad debt expense	300,000
Inventory gain/loss	594,000
Municipal and payroll tax	<u>2,075,000</u>
	4,591,000
Less: Non-regulated donations and corporate promotion	<u>(133,000)</u>
<b>Total</b>	<b><u>\$4,458,000</u></b>

Municipal and payroll taxes account for 47% and staff training and employee expenses account for 26% of miscellaneous expenses. Except for inventory gain/loss, which is dealt with below, the Board has no specific evidence on which to base a decision on cost reductions in other categories and is of the view that such savings can be appropriately addressed by NLH within the context of a general productivity allowance.

Included in the Donations/Corporate Promotion amount above is a donation to the Town of Bay D'Espoir in the amount of \$60,000 for street lighting. (GT, 2001 General Rate Hearing Report, pg. 32) The Board had accepted this expense as a regulated expense several years ago. During final submissions NLH informed the Board that it was proposing to exclude the \$60,000 for the Bay D'Espoir street lighting costs from the 2002 revenue requirement. (Transcript, Jan. 28, 2002, pg. 8/32-35)

**The Board approves NLH's proposal to discontinue treatment of Bay d'Espoir street lighting costs as a regulated expense and will order its removal from the 2002 test year revenue requirement.**

**Inventory Gain/Loss**

NLH maintains an inventory of parts and materials in its various depots throughout the Province. These inventory items are used to support the routine maintenance and operation of the system. The total value of the supplies inventory has ranged from \$17,630,000 in 1992 to \$21,095,000 in 2000 after adjusting for the Roddickton wood chips plant. (NP-145, pg. 3) This represents an increase of approximately 19.65% in the value of the inventory.

In 1997 NLH adopted a number of strategies expected to result in reduced costs relating to inventory overhead. One of these strategies was the awarding of long term blanket contracts for goods and services. These contracts account for the majority of NLH's regular maintenance materials and service requirements. (GT 1999 Annual Financial Review, pg. 31-32)

During the hearing attention focused on proposed miscellaneous gains and losses to be written off in the test year. The test year revenue requirement includes an allowance for supply inventory losses of \$594,000. (GT 2001 General Rate Hearing Report, pg. 32) The inventory losses for 2001 were budgeted at \$606,000 with an additional charge of \$688,000 for write off of obsolete items in Bishop Falls. (Supplementary Evidence, J. C. Roberts, Schedule IA, pg.3/11-12) The additional charge increases the total adjustment to supplies inventory in the 2001 year to \$1,294,000. NP expressed the opinion that the supplies inventory for the test year should be reduced to reflect the higher losses experienced in 2001 year. (Transcript, Nov. 15, 2001, pg. 2/34-41)

In NP-145 (pg. 1/17-25) NLH described the changes that have been implemented since 1993 in its inventory control system, including moving from a manual system of hard copy inventory control forms and annual physical inventory counts to an on-line computer based system. The JD Edwards system will provide on-line inventory, quantities and cost transactions on a real time basis.

The IC in their final argument (pg. 119) asked the Board to reduce the 2002 supplies inventory by \$600,000.

The implementation of the JD Edwards System should provide NLH with the flexibility and opportunity to improve the tracking of purchasing and allocation of supplies and materials. The Board is of the view that in future the losses/gains for supplies inventory should reflect the new inventory management and purchasing policies of NLH. The Board is of the opinion that any resulting reduction in the revenue requirement is best achieved within the context of a general productivity allowance.

**Miscellaneous costs as proposed by NLH for the 2002 test year, including inventory gain/loss, are accepted subject to any reduction by NLH resulting from the productivity allowance set by the Board.**

## **6. Productivity Allowance**

As indicated in the foregoing assessment of "*other costs*" outlined in Table 1 considerable attention was devoted throughout the hearing to the level of controllable expenses and the degree to which these expenses reflected efficiencies in NLH.

In its Supplementary Evidence GT noted that one approach to address efficiencies in forecast controllable expenses is to provide for a "*productivity allowance*" to adjust test year revenue requirement. GT points out that this approach provides management with the latitude to determine where further cost savings or efficiencies can be best achieved. Attempting to reduce individual expense categories may impede the ability of NLH management to make decisions on

how and where efficiency improvements are best implemented. (Supplementary Evidence, GT, Dec. 13, 2001, pg.4/11-19) The concept of applying a productivity allowance to the test year revenue requirement is not new to the Board and was used in the 1996 general rate hearing for NP.

Intervenors for the most part were unanimous in their support for a productivity allowance. In their final argument (pg. C-34) NP identified specific reductions in revenue requirement totalling \$4,135,000 and submitted that, in order to provide an incentive for efficiency, the Board should order a productivity allowance of 1.5% of the adjusted “*other*” operating costs in the revenue requirement of \$99,275,000, or \$1,500,000. The CA pointed to GT’s evidence which suggested that a fair way to deal with these expenses is in a “*macro*” sense and to employ a productivity allowance for NLH in reference to total controllable operating and maintenance costs. The CA continued that, while GT suggested a productivity allowance in the range of 1-1.5%, Mr. Brushett of GT agreed a 2% productivity allowance could be appropriate, depending upon the Board’s view of the matter. (CA, Final Argument, pg. 41) The IC in their final argument (pg. 19) submitted that the Board should direct NLH to give increased focus to cost reduction projects and they would support the type of productivity allowance suggested by Mr. Brushett.

NLH, in its final argument (pg. 29), concluded that the use of the productivity allowance factor as suggested by GT is totally inappropriate in the absence of any evidence that any of the expenditures are unreasonable, unnecessary or imprudent. NLH submits it has demonstrated that it has been fiscally responsible and prudent with respect to the control of its costs from 1992 to 2002, and that such a productivity allowance factor should not be ordered by the Board.

The Board believes the onus is on NLH to bring forward performance measures which clearly demonstrate the efficiency of its operations. This perspective was not presented into evidence before the Board in any of the normal business performance measures, either overall corporate performance, cost efficiencies or business unit accountability. There was also no indication that NLH had any of these performance measures/targets/objectives built into its existing business systems or was contemplating their implementation in relation to the strategic or business planning exercise currently underway. Under these circumstances the Board has no level of comfort regarding individual cost savings or efficiencies and the Board is left with little choice in keeping with the least cost power policy of the Province but to impose an appropriate productivity allowance as suggested by GT and the intervenors. The Board, in considering its findings of “*other costs*” as previously outlined, believes a productivity allowance for the test year of \$2,000,000 on NLH’s “*other costs*” is reasonable. In looking ahead the Board is of the opinion that without adequate performance standards to reduce the operating efficiency of NLH the effectiveness of its regulation will be marginalized. This is not acceptable and the Board will be asking GT to review NLH’s operations and, following consultation with NLH, make recommendations on suitable regulatory performance standards that can be implemented in a practical and cost effective manner as part of NLH’s normal reporting process.

**In addition to the other adjustments to the 2002 test year revenue requirement, the Board will require a reduction of \$2,000,000 on NLH's "other costs" for the 2002 test year to reflect a productivity allowance.**

**The Board will request its financial consultants to work with NLH to recommend suitable regulatory performance standards which will be used to measure operating efficiencies at NLH and these will be incorporated as part of NLH's ongoing reporting to the Board.**

## **7. Non-regulated Expenses**

At various times throughout the hearing references were made to the identification and treatment of non-regulated expenses. Non-regulated expenses represent expenditures incurred by a utility which are not approved by the Board for recovery from ratepayers. Included in this category are such expenses as donations, promotion and certain other costs that, in the Board's opinion, do not provide any benefit to ratepayers. For regulatory purposes total non-regulated expenses are eliminated, or added back to net income, for the purposes of calculating rate of return on rate base or rate of return on equity.

In this Application, NLH has eliminated \$133,000 of non-regulated expenses from the revenue requirement. (GT 2001 General Rate Hearing Report, pg. 32) In addition, during final submission NLH proposed that \$60,000 relating to street lighting costs for the Town of Bay D'Espoir also be excluded from revenue requirement. (Transcript, Jan. 28, 2002, pg 8/32-35) As noted in the section on Miscellaneous Costs, the Board approves NLH's proposal on this item. Another item which has attracted attention during the hearing is spousal travel, which was addressed on pg. 70 of this decision.

The only other regulated expense that was questioned during the hearing was the inclusion of an expense of \$75,000 for "*Communications Plan*" advertising. In response to NP-188 NLH explains that the issue of external and internal communications is currently being dealt with by NLH's Management as part of its strategic planning process. Under cross-examination by NP, Mr. Osmond confirmed that the expense does not include costs for advertising on safety or conservation issues (Transcript, Nov. 19, 2001, pg. 23/11-26)

NP-286 asked GT whether, in its opinion, the communications plan advertising expense of \$75,000 should be a regulated cost, or whether the nature of the plan is one of corporate promotion and should therefore be chargeable to non-regulated accounts. GT's response was that its understanding of the purpose of the plan is to strengthen NLH's corporate image with their external and internal stakeholders, effectively communicate internally and externally, enhance employee effectiveness and build closer relationships with communities and its customers. In the opinion of GT the nature of the plan is one of corporate promotion and should be considered a non-regulated expense.

In final argument (pg. C-31) NP points out that in Order No, P.U. 7(1996-1997) the Board ordered that NP's regulated expenses for advertising be limited to matters relating to



conservation, safety and consumer information. NP suggests that it is questionable whether the corporate communications plan included in the revenue requirement would meet this test.

NLH does not agree with GT's position on the corporate communications plan. In final argument (pg. 26/13-19) NLH states that *"The purpose of the costs referred to are to improve communications, primarily with employees and with stakeholders. The costs are not for a promotional type of advertising to enhance Hydro's corporate image in the community."* NLH submits that the communication cost referred to in NP-286 is an appropriate regulated expense.

Based on the evidence, in particular that of Mr. Osmond and Mr. Brushett of GT, the Board is of the view that the \$75,000 advertising expense is aimed at corporate promotion of NLH as opposed to an expense which would directly benefit customers in areas of either conservation, safety or consumer information. The Board concludes that, while this type of advertising may serve to enhance NLH's corporate image within the general community, this is insufficient justification for it to be treated as a regulated expense supported by ratepayers of NLH. This is also consistent with the Board's treatment of similar expenses for NP.

**The Board will not accept the \$75,000 for "Communication Plan" advertising as a regulated expense for the 2002 test year.**

**Subject to adjustments for Bay D'Espoir street lighting, spousal travel and "Communication Plan" advertising, the Board concludes that non-regulated expenses are properly excluded from NLH's 2002 test year costs.**

## **8. Capitalized Expenses**

Capitalized expenses include salaries and benefits of NLH employees whose time is charged directly to capital projects, as well as departmental and non-departmental overhead which is considered necessary to support those capital projects.

NLH proposes to reduce its revenue requirement in the test year by \$5,722,000 to reallocate operating costs that are deemed attributable, either directly or indirectly, to the capital program. (Supplementary Evidence, J. C. Roberts, Schedule 1A) The majority of test year capitalized expenses are salaries in the amount of \$4,046,950 which are directly attributable to forecast capital projects. [NP-8(b)] NLH's forecast capitalized expenses as a percentage of budgeted capital expenditures in 2002 is approximately 13.3%. (Exhibit No. NP-7) This figure compares to an average percentage of capitalized expenses from 1992 to 2000 of 24.8%. NLH does not budget for overtime in capital expenditures and as a result both capitalized expenses and salaries are budgeted lower with one cost affecting the other. (Transcript, Nov. 14, 2001, pg. 38/65-71) NP-237 explains that \$1,377,000 of capitalized expenses in 2000 are related to:

Labrador River Project	\$650,000
Salary overtime	<u>727,000</u>
<b>Total</b>	<b><u>\$1,377,000</u></b>

Adjusting the 2000 capitalized expenses to reflect the above items will reduce the percentage of capitalized expenses in 2000 to 15.2% which brings the 2000 percentage in line with the estimated percentage of 2002 capitalized expenses to the revised 2002 capital budget.

On cross-examination by NP Mr. Roberts explained that the impact of underestimating capitalized expenses would result in more margin for NLH. Mr. Roberts detailed NLH's method of allocating capitalized expenses and acknowledged there could be more than one method used to track capitalized expenses. He further acknowledged that NLH's policy of allocating capitalized expenses has not been submitted to the Board for approval. (Transcript, Nov. 14, 2001 pg. 37/19-23)

Mr. Brushett of GT agreed that NLH's capitalized expenses for the test year are conservatively estimated. He also acknowledged that NP's method for allocating capitalized expenses was subject to a full review by the Board and, as a result, NP was ordered to use the incremental approach in calculating capitalized expenses. Mr. Brushett suggested that the Board would have to do a review to assess the impact and appropriateness of NLH using the incremental approach of accounting for capitalized expenses. (Transcript, Jan. 8, 2002, pg. 28/19-25)

The Board feels that a review of the methodology and approach used by NLH to determine capitalized expenses would be appropriate at some point in the future. Such a review or study would need to be fairly comprehensive to address its impact on ratepayers and on NLH. Considering the magnitude of this particular item and the many other regulatory issues to be dealt with in the near term, the Board is not prepared to order that such a study be undertaken at this time.

The Board notes that NLH's 2002 test year capitalized expenses of \$5,722,000 are lower as a percentage of total capital expenditures as compared to prior years. However, the Board has no basis to order an adjustment to capitalized expenses for 2002.

**The Board accepts the capitalized expenses in the amount of \$5,722,000 as proposed by NLH for the 2002 test year.**

## **9. CF(L)Co Allocation**

The CF(L)Co allocation represents inter-company charges from NLH to CF(L)Co for the provision of services in accordance with a Services Agreement. Essentially this Agreement provides for cost recovery of salary and certain overhead expenses which can be attributed to CF(L)Co, a non-regulated entity. It is important that appropriate procedures and methodology be in place to ensure all inter-company services are properly costed and recorded. If this were not the case, ratepayers may end up bearing certain costs which are attributable to non-regulated activities.

NLH recently updated its methodology for determining and allocating inter-company costs. Information with respect to the approach and methodology employed by NLH was provided to all parties by way of response to NP-11 (b). GT reviewed the inter-company charges and new methodology used by NLH and in its report concluded that the new methodology is reasonable and appropriate. (GT, 2001 General Rate Hearing Report, pg. 37)

**The Board accepts the CF(L)Co allocation in the amount of \$1,910,000 as proposed by NLH's for the 2002 test year.**

## **10. Interest**

Interest is primarily the cost of the long term and short term debt of NLH. The interest calculation also includes costs associated with the amortization of the foreign exchange losses, the Government guarantee fee, long term leases and the notional interest on recall power less credits for RSP, sinking fund assets and non-regulated debt.

As shown in Table 1, NLH's interest calculation included in 2002 test year revenue requirement is \$91,821,000.

The primary discussions on interest during the hearing covered four distinct topics:

1. Guarantee fee
2. Dividend paid
3. Notional interest calculation
4. Interest on overdue accounts

The issues of the guarantee fee (See pg. 34) and dividend paid (See pg. 35) have been addressed by the Board as referenced. Notional interest calculation and interest on overdue accounts are dealt with following.

### **Notional Interest on Dividend from Churchill Falls Recall Power**

NLH sells recall power to Hydro Quebec under the terms of an unregulated contract. The funds are received by NLH on a monthly basis and are paid to Government in the form of a dividend. The payments are 100% of the profits received from the sale of recall power. NLH contends that there is a benefit to the ratepayers of understated interest expense. This benefit, or notional interest, is calculated based on the premise that the funds deposited in NLH's bank account during the year are utilized and as a result its short term promissory notes are reduced and its interest cost is understated.

The main issue with respect to notional interest was the opinion that there is no obligation by NLH to pay the interest and the Board had not given prior approval for the inclusion of such calculations in the revenue requirement. (NP, Final Argument, pg. C-36; IC, Final Argument, pg. 116-117) Under cross-examination Mr. Brushett of GT agreed with the concept of notional interest and checked the basis of the calculation, but acknowledged that the Board has not reviewed the methodology used to calculate the adjustment. (Transcript, Jan. 8, 2002, pg. 24/51-54)

**The Board acknowledges the benefit to ratepayers of the flow through income from recall power in that it reduces NLH's borrowing costs during the year and accepts NLH's calculation of the notional interest in the 2002 test year revenue requirement.**

**The Board will require NLH to file prior to June 30, 2003 details of the methodology used for calculation of notional interest.**

### **Interest on Overdue Accounts**

NLH has not included in the revenue requirement for 2002 any provision for interest to be collected from customers for late payment of invoices for services rendered. Prior to the implementation of the new JD Edwards accounting system NLH did not have the tools to charge customers interest on overdue accounts. (Transcript, Nov. 19, 2001, pg. 46/17-26). Effective January 1, 2002 NLH proposes to charge interest on overdue accounts but because of past practice of not charging interest, it does not have any basis for estimating an amount for 2002. (Transcript, Nov. 19, 2001, pg. 46/88-95)

In final argument NP expressed the view that NLH's position of not estimating an amount for interest income on overdue accounts in the test year is unreasonable in light of its ability to calculate notional interest on non-regulated recall sales. (NP, Final Argument, pg. C-37) In final argument NLH states that there is no need to include an interest component for the rural customers because it did not forecast any lag in receiving payments from these customers in the cash working capital allowance calculation. (Transcript, Jan. 28, 2002, pg. 6/41-44) Under cross-examination Mr. Hamilton stated that the collection policy of NLH is to include a late payment charge after 30 days. (Transcript, Nov. 29, 2001, pg. 28/72-79) The revenue lag shows a collection lag of 39.47 weighted average days. (Supplementary Evidence, J. C. Roberts, Schedule IVA)

The evidence presented to the Board indicates that NLH has anticipated receiving interest on overdue accounts. The revenue lag analysis uses a 39.47 day collection period and the stated policy of NLH respecting accounts over 30 days will attract overdue charges. The calculation of a reliable estimate for anticipated interest should not be an insurmountable problem if the lag analysis and policy are integrated.

**The Board will require NLH to include in the 2002 test year revenue requirement an appropriate credit for interest collected on overdue accounts.**

**NLH will be required to revise the calculation of the interest expense for the 2002 test year to incorporate the decisions of the Board.**

#### **11. Return on Equity**

Return on equity (ROE) is dealt with on pg. 43 of this decision.

#### **12. Total Revenue Requirement**

The total revenue requirement will be recalculated by NLH to reflect the decisions contained in this decision.

## **IV. RATE STABILIZATION PLAN**

### **1. Introduction**

Prior to 1986 NLH maintained two separate accounts to adjust for annual variations in hydraulic and thermal production as compared to test year forecasts allowed in NLH's rates.

A water equalization provision recorded the fluctuations in water availability and the resulting changes in thermal generation costs needed to meet load requirements. NLH charged or credited fuel expense in its annual income statements with a corresponding adjustment in the water equalization account equivalent to actual increased or decreased generation costs relative to hydraulic production based on an average yearly water condition. For example, a drier year than average would generally result in less hydraulic production, more thermal generation and hence higher fuel costs; whereas a wetter than average year would have the opposite impact. The water equalization account had a maximum provision of \$36,000,000 which was considered sufficient to absorb the adverse affects of a reoccurrence of the three consecutive driest years on record.

NLH's second account involved an adjustment formula to recover generation costs attributable to fuel prices in excess of those allowed in test year rates. These fuel adjustment charges were recovered in the month following which the costs were incurred. This method of recovery resulted in significant volatility in rates to customers, particularly during winter months when consumption was highest.

In the early 1980s rising fuel prices and higher fuel consumption from increased thermal generation at Holyrood raised consumer concerns regarding monthly rate fluctuations and high electricity rates. In 1985, as a means of providing greater rate stability to customers, NLH proposed the Rate Stabilization Plan (RSP). The RSP contemplated consolidating both the hydraulic and the fuel adjustment charge (FAC) accounts into a single plan. The positive balance at the time in the water equalization provision would be refunded to NP and the Island IC over three years. The proposed RSP was accepted by the Board subject to various conditions. NLH later clarified the operating characteristics and mechanics in a letter to the Board. [IC-284(e)]

The existing RSP provides for adjustments to smooth variations between forecasted test year costs used to set rates and actual costs attributable to differences in the price of No 6. fuel, hydraulic production and load forecast. The plan also includes an adjustment to account for any variation in NLH's rural revenues which may arise as NLH's rural rates are changed, in accordance with Government policy, to reflect NP's rates. This provision was incorporated into the RSP as part of the 1993 generic COS hearing.

The variables used in the RSP are based on the cost of service study filed with the Board in November 1991 which is based on forecast test year costs and operating conditions for the 1992 test year. These include a normal annual hydraulic production of 4,205.32 GWh, a cost of service oil price of \$12.50 Cdn/bbl and a fuel efficiency factor for Holyrood of 605 kWh per barrel.

NLH tracks the various components of the plan monthly, comparing actual results with the cost of service and crediting or charging the plan with the difference. The annual balances in the plan are recovered from NP using a declining balance over a three-year period and from IC through an automatic adjustment in rates. In the case of NP, one-third of the amount as of December 31 is either recovered or paid over the 12 month period commencing the following July 1 through an adjustment in the energy rate charged to NP. NP passes this adjustment on to its retail and general service customers. In the case of the IC one third of the plan balance as of September 30 is either recovered or paid over the 12 month period commencing the following January 1 through an adjustment in their firm energy rate.

## 2. Current Status of the RSP

The actual balances in the RSP for the period 1992-2000 and the forecast balances for 2001 and 2002, are shown below:

<b>Rate Stabilization Plan (\$ millions)</b>			
<b>Year</b>	<b>Total Balance</b>	<b>Retail (NP)</b>	<b>Industrial</b>
1992	4.1	0.6	3.5
1993	9.4	3.8	5.6
1994	(4.0)	(5.6)	1.6
1995	12.9	6.9	6.0
1996	30.2	21.0	9.2
1997	41.3	27.6	13.7
1998	48.8	33.0	15.8
1999	34.5	21.5	13.0
2000	35.6	22.7	12.9
2001 forecast – as filed	87.4	61.3	26.1
2001 forecast – revised (PUB-81)	83.6	60.4	23.2
2002 forecast – as filed	97.8	72.0	25.8
2002 forecast – revised (PUB-81)	86.3	65.0	21.3

(Supplementary Evidence, J. C. Roberts, Schedule XIV)

In final argument (pg. 53) NLH states that the increases in the balances in the RSP from 1992 to 2001 were caused by the dramatic increase in the price of No. 6 fuel from the time that base rates were set in 1992 using \$12.50 Cdn/bbl for No. 6 fuel. The increase forecast RSP balance for 2002 relates primarily to the difference in the forecast average price for No. 6 fuel and the price NLH is proposing to use for the RSP of \$20 Cdn/bbl.

PUB-81 indicates the mill rate adjustments required for NP and the IC to recover the outstanding balances. The IC RSP mill rate for 2001 was set in January 2002, based on the September 30, 2001 balance, at 5.14 mills/kWh. An RSP mill rate of 4.84 mills/kWh is forecast for January 2003 based on the forecast September 2002 balance. For NP, the RSP mill rate based on the December 2001 balance is forecast to be 4.52 mills/kWh in July 2002, with a

forecast mill rate of 4.83 mills/kWh in July 2003 based on the projected December 2002 balance in the retail plan. These mill rate adjustments are in addition to base rate increases requested in this Application.

### **3. NLH's Proposals**

NLH outlined proposed changes to the RSP in IC-120. These changes include:

1. Hydraulic Production Variation
  - An addition of mini-hydro plants to the calculation of hydraulic production variation.
  - A change in the Holyrood conversion factor from 605 to 610 kWh/bbl
2. Load Variation
  - No longer include interruptible energy in the plan. Barrels relating to this energy will also be excluded from the fuel price variation calculation (along with the existing exclusion for barrels relating to emergency sales).
3. Customer Splits
  - No longer base the RSP split on test year Cost of Service Study (COS); instead use 12 month-to-date invoiced/bulk transmission energy, as well as test year Rural deficit allocation.
4. Rate Calculation
  - Establish energy rates on the same basis as split, ie. 12 month-to-date invoiced/bulk transmission energy.
5. Other
  - Change finance charge from NLH's embedded cost of debt to NLH's WACC.
  - Increase the RSP cap for NP of \$50,000,000 to \$100,000,000.

The current "*cost of service*" price of fuel in the RSP is \$12.50 Cdn/bbl set by the Board in 1992. NLH is projecting that the weighted average annual purchase price for No. 6 fuel in 2002 will be approximately \$25.91 Cdn/bbl. (2<sup>nd</sup> Supplementary Evidence, R. Henderson, pg. 1) In this Application, NLH is proposing a test year fuel price of \$20 Cdn/bbl in calculating the revenue requirement for base rates. The difference resulting from the \$20 Cdn/bbl and the actual price will be included in the RSP.

### **4. Issues Raised at the Hearing**

There was considerable discussion surrounding the RSP. Some of the issues raised by the intervenors included the complexity of the plan, the amount of the outstanding balance, the recovery of this balance and the future of the plan.

Mr. Bowman expressed his concerns about the existing RSP: (Pre-filed Evidence, C. D. Bowman, pg. 6):

- i. *“It causes cross-subsidization in that past consumers are being subsidized by current consumers, and it appears that current consumers will be subsidized by future consumers;*
- ii. *It removes any incentive that Hydro might have to better manage its fuel supply costs and improve its forecasting techniques; and*
- iii. *It is difficult for consumers to understand.”*

Mr. Bowman also submitted that the RSP in its present form distorts price signals and should be eliminated, or, at the very least, the Board should direct NLH to file a revised RSP that addresses the above concerns. (Pre-filed Evidence, C. D. Bowman, pg. 5-6/21-12)

Mr. Brockman agrees with the continuation of the RSP but not with the proposed increase of the cap to \$100,000,000. The *“increase cap is excessive and gives Hydro little or no incentive to operate efficiently”*. (Pre-filed Evidence, L.B. Brockman, pg. 9) Mr. Brockman suggests that the Board allow NLH to book amounts in excess of the present cap of \$100,000,000. NLH can decide to either absorb the difference or apply to the Board for a hearing to justify the difference. (Pre-filed Evidence, L. B. Brockman, pg. 9) Mr. Brockman disagreed with the CA’s position on eliminating the RSP and stated:

*“I do not advocate the elimination of the RSP. The RSP helps reduce the volatility associated with dramatic changes in both fuel costs and hydraulic conditions. It was implemented because customers did not want to be exposed to excessive price volatility. In that respect, it has served its purpose well”*. (Supplementary Evidence, L. B. Brockman, pg. 5)

The IC do not object to the concept of a RSP as a mechanism to protect both ratepayers and NLH from variations in uncontrollable variables such as hydrology and fuel prices. Mr. Osler, in his pre-filed and supplementary testimony, had a number of observations, in particular, with respect to the load variation component and the allocations of the plan balances between NP and the IC. When commenting on the load variation component Mr. Osler stated (2<sup>nd</sup> Supplementary Evidence, C. F. Osler, pg. 4/81):

*“...the load variation component provides substantial protection to Hydro from errors in its load forecasting and changes in all factors influencing energy sales, including weather, economy, changing consumer fuel mix requirements, etc. The load variation component has provided Hydro with substantial additional income in 8 of the past 9 years, as much as \$5,300,000 in 1999 which has clearly played a marked role in Hydro being able to avoid regulatory review by the Board over this period.”*

Mr. Osler also comments that, based on the evidence filed by NLH on the RSP *“it is concluded that Hydro’s process results in substantial balances in the fund being improperly allocated to NP, IC and Rural Interconnected customers based on reallocation of cost-of-service*



*amounts that are not properly part of the RSP.*” (2<sup>nd</sup> Supplementary Evidence, C. F. Osler, pg. 3/17-19)

Mr. Osler states that, in relation to the intended operation of the RSP, there are two areas where the operation of the current RSP differs from the 1985 Board Order (2<sup>nd</sup> Supplementary Evidence, C. F. Osler, pg. 7/21/28):

- “1. *The RSP was intended only to adjust for load variation to the extent that it caused an earnings variation for Hydro.*
2. *The RSP was intended to be simple for the utility to administer and for customers to understand.*

*Neither of these principles have been applied in the current RSP: the operation of the plan is clearly complex to a degree that is unnecessary, and the plan adjusts and reallocates substantial costs between customers that are in no way related to variations in Hydro’s earnings.”*

In final argument (pg. 64) the IC submitted that:

*“It should not be forgotten that, while the RSP is clearly a ‘rate’, it serves a different purpose than the base rate. It is intended to fluctuate, to accommodate variations both positive and negative over time arising from particular causes. It is not intended to represent an amount which forms a part of the charge for electricity to consumers over the long term. Long run changes in price levels of inputs, such as fuel, should be incorporated in base rates; it is the failure to do so in this case, i.e. that continued attachment to the unrealistic \$12.50/bbl fuel, that has created something of a crisis.”*

The IC propose that the Board should direct NLH to establish separate rate elements to track fuel price changes and water inflow changes. They also suggested that the fuel price adjustment should be shorter term (1 year) while the water inflow provision is more suited to a longer term adjustment since forecasts are based on long term averages. (IC, Final Argument, pg. 64)

Dr. Wilson questioned whether the social gain of deferring recovery of NLH’s fuel cost, by setting a base below market, justifies the pricing inefficiency and equity issues inherent in shifting costs between generations. He stated *“The apparent philosophy behind Hydro’s RSP is somewhat different than the reasons offered by most utilities for fuel cost adjustment clauses in their rates.”* (Pre-filed Evidence, Dr. J. W. Wilson, pg. 34)

The Board’s decisions on the issues raised by the intervenors are dealt with below.

## **5. Continuation of RSP**

The Board agrees with NP and NLH that the RSP provides rate stability to customers and also provides a mechanism to eliminate volatility in NLH’s revenue requirement due to events beyond NLH’s control. This was the original intent of the RSP and remains so today. Ratepayers benefit from the smoothing of the impact of changing fuel prices on rates and thus

eliminating the rate spikes experienced by customers under the previous fuel adjustment charge. The Board believes that the regulatory principle of rate stability and predictability is still important to customers.

**The Board is not convinced that the interests of the consumers or NLH would be served through the elimination of the RSP and, other than the specific adjustments and changes described in this decision, will not make any other change in the RSP or its operation at this time.**

The Board does however note the concerns and issues surrounding the RSP raised by the intervenors, especially the CA and the IC, in particular concerns about the complexity of the plan and the interactions of the various components of the plan, especially the inclusion of the load variation provision. The Board also agrees that the existing RSP and its operation is difficult to understand.

**The Board is convinced, based on the evidence and issues raised at the hearing, that the design and elements of the existing plan should be reviewed. To that end the Board will commission a study of the RSP, which will include a review of the plan since its implementation, together with the operational issues raised by the intervenors at the hearing. The Board will decide based on the results of that study what action should be taken.**

## **6. Price of Fuel in RSP**

The primary concern of the Board at this time is not the intent or principle of the RSP but rather its operation over the last five years which has seen the plan balances increase significantly. The Board acknowledges that the primary reason for this is the price of No. 6 fuel in the RSP of \$12.50 Cdn/bbl, when actual fuel prices in recent times have exceeded \$40 Cdn/bbl.

The Board agrees with NLH that the issue of *rate shock* to consumers is an important one. The Board is convinced, however, that incorporating the forecast price of fuel into base rates is the fairest and most prudent course of action which will avoid ever increasing balances in the RSP and also protect future consumers from having to pay even higher rates because of the deferral of a portion of fuel costs. As indicated when considering revenue requirement, the Board believes it is important to maintain the relationship between the price of fuel and electricity rates and that the correct price signals are reflected in rates to consumers. The Board will monitor the actual price of fuel, the RSP operation and the plan balances through NLH's quarterly reporting to the Board.

**The COS price for No. 6 fuel to be used in the RSP for calculating the fuel price adjustment will be based on the monthly 2002 forecast fuel prices as filed in Table 1 of R. J. Henderson's, 2<sup>nd</sup> Supplementary Evidence. This table indicates that the weighted average fuel price for the test year will be \$25.91 Cdn/bbl. In addition, NLH will be required to file updated 12-month fuel forecasts as part of its quarterly report to the Board.**

## 7. Increase in Retail Cap

The existing retail portion of the plan has a cap of \$50,000,000 (positive or negative) and was established in the Board's 1985 report recommending approval of the RSP. The cap was set to trigger a review by the Board as outlined in the 1985 report (pg 42):

*"...if the net balance of provisions created by the Rate Stabilization Plan, to the extent that they are applicable to retailers, reaches \$50 million (either positive or negative). At that appearance, Hydro would either propose alternative rates or present facts relevant to examining the need for an alteration of rates in light of the circumstances at that time."*

NLH has requested in this Application that the current cap on the retail portion of the plan be increased from its current level of \$50,000,000 to \$100,000,000. The reasons for the proposed increase in the cap relate to the increasing plan balance and the fact that NLH is proposing that the price of fuel to be used in base rates for 2002 be \$20 Cdn/bbl, which is significantly less than the forecast price. NLH also acknowledges that the original request for a \$100,000,000 cap was based on a forecast RSP total balance of \$97.8 million. (NLH, Final Argument, pg. 54/4-5)

In supplementary evidence GT recommended that the Board approve a temporary or interim increase in the retail cap and that the cap should be set in relation to the forecast retail plan balance over the 2002 and 2003 time period. (Supplementary Evidence, GT, pg. 8) NLH did not oppose GT's recommendation but suggested that the cap be set at \$85,000,000 to allow for forecasting uncertainties and the fact that the RSP balance will also be increased by the date of implementation of new rates for 2002. (NLH, Final Argument, pg. 54/19-29)

In final argument NP did not object to an increase in the RSP cap stating that *"An increase of the Retail RSP cap to \$60-65 million, the forecast year end 2001 balance, is in Newfoundland Power's view, practically inevitable given that the year end 2001 balance represents fuel costs already incurred by Hydro."* (NP, Final Argument, pg. D-4)

The reason for implementing a cap on the retail plan was to ensure that the plan balance did not become excessively large. It is clear to the Board that the mere existence of a cap has not prevented this from happening. However, the Board is now faced with the dilemma of a large plan balance, which needs to be recovered from customers, coupled with a significant increase in base rates to these same customers due to higher fuel costs.

Any mechanism that is put in place to trigger a review of the RSP must be considered with a view to the original intent of the plan. On pg. 87 of the Board's 1985 report the Board states:

*"The elimination of FAC will mean that fuel costs will be reflected in higher base rates and will not vary from month to month between adjustments made for the Rate Stabilization Plan and will protect the consumer from the large increase in the FAC that occurred during the winter of 1984-1985."*

This indicates that the Board at the time was concerned about rate stability and felt that this goal was best achieved by recovering fuel costs in base rates. The Board believes that this is still the best method to deal with fuel costs and that the goal should be to minimize deviations between current fuel costs and current electricity rates. The RSP should be used only to capture the uncertainties in forecasting. The Board maintains this principle in its decision to order NLH to use the forecast average fuel price in calculating its 2002 test year costs for No. 6 fuel.

In light of the other decisions taken at this time, including the commissioning of a review of the RSP, it is the Board's opinion that a cap on the retail plan balance is no longer necessary. The Board believes that setting the price of No. 6 fuel at forecast prices and recovering those costs in base rates instead of deferring a portion of the costs in the RSP will address the significant issues with respect to the cap. As well, the Board will undertake increased monitoring of the plan and will track the spread between the price of No. 6 fuel used in the plan, the actual price NLH is paying and the forecast long term price. The Board will exercise its authority to investigate or make changes to the RSP when it determines, based on the information before it, that action is necessary.

**The Board does not accept NLH's proposal to increase the cap on the retail portion of the RSP to \$100,000,000. The Board will remove the existing cap of \$50,000,000 on the retail portion of the RSP.**

#### **8. Recovery of Balance in the RSP**

The balance in the plan is currently recovered from customers over a three-year period using a declining balance method. As indicated previously, this recovery method has been in place since 1985 and means that residential customers are assessed as of July 1 each year for one third of the balance in the plan as of December 31 of the previous year. Similarly, the RSP adjustment for the IC occurs on January 1 each year based on a plan balance for the IC as of September 30 of the previous year.

While this recovery method has been working well according to NLH, there were questions raised during the hearing as to whether a shorter time frame for recovery should be considered in light of the increasing balances in the plan. GT proposed two alternatives for the Board to consider (Supplementary Evidence, GT, pg. 9):

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

Either of these options will be faster than the existing method in recovering plan balances over the long term. Both will, however, result in higher mill rate adjustments in 2003 than would

occur under the current recovery mechanism because of the two year recovery period. (Supplementary Evidence, GT, Exhibit IV)

In final argument (pg. 56) NLH submitted that it is not opposed to a shorter period for the recovery of the RSP balance as proposed by GT but requested that the Board recognize the impact on consumers of using an accelerated recovery method. NLH stated that either of the alternatives suggested by GT is acceptable.

In considering this issue, the Board has to take into account the effect on rates of recovering some of the existing plan balance in the test year combined with its decision to rebase fuel at forecast prices. While lower RSP balances should accumulate as a result of recovering more of the fuel price in the actual base rate, the increase in base rates will be higher than that originally proposed by NLH. Recovering the RSP balance as proposed by NLH will mean even higher rates for both retail and industrial customers.

In addition to considering the impact of all costs on electricity rates to consumers, the Board has to balance the issue of trying to match recovery of costs with the period in which these costs were incurred, sometimes referred to as an inter-generational equity issue. This issue was raised by several of the expert witnesses, in particular Mr. Bowman and Dr. Wilson. Although costs should normally be recovered over the period in which they are incurred, the Board also has to balance this goal with the impact on ratepayers of this kind of matching recovery.

**Because of the magnitude of the anticipated rate increases which will result from the Board's decision to use the forecast average fuel price in base rates, the Board will not allow any additional recovery of the existing RSP balance until 2003. The Board believes that deferral of the RSP mill rate adjustments together with an extended recovery period mitigates the impact of moving to true "cost based" rates incorporating the forecast price of No. 6 fuel.**

**With respect to the recovery of the balance in the RSP the Board will order the following:**

- **The existing balances in the RSP are to be fixed as of the end of the month prior to the effective date of rate implementation based on the current methodology.**
- **The RSP mill rate for the IC will be reset as of the effective date of rate implementation for the remainder of 2002 to 2.80 mills/kWh, which was the rate effective January 1, 2001.**
- **The RSP mill rate for 2002 for NP will remain at 1.77 mills/kWh, which was the rate effective as of July 1, 2001.**
- **Recovery of the fixed balance outstanding will be spread over a five year period commencing in 2003 using a straight line recovery method. The method for calculating the mill rate adjustments and the date of the adjustments for both the IC and NP will remain the same. The amounts recovered will be credited against the outstanding balance of the plan. Interest will be accumulated and maintained on the balance using the WACC.**

- **Recovery or credits of balances that accumulate in the plan after the effective date of rate implementation will be calculated using a straight-line method over a two year period, to be effective January 1, 2004 for the IC and July 1, 2004 for NP.**

## **9. Allocation of Rate Stabilization Plan Balances**

The IC raised the issue of the allocation of balances in the RSP between the retail customers and the IC. Mr. Osler submits that there were “*significant inconsistencies and improper operation of the RSP since the Board last reviewed Hydro in 1992*”. (2<sup>nd</sup> Supplementary Evidence, C. F. Osler, pg. 8/19-29) Their concern is summarized in the IC’s final argument (pg. 73):

*“One point on which the 1985 report is clear and consistent is that the RSP generally and the load elements in particular were intended to be applied to circumstances which gave rise to an actual change in NLH’s revenues or costs. At page 90 of the Report, the Board states, repeating in part its words on p. 88 in item (vi) where it enumerated the changes from Hydro’s proposed RSP:*

*The Board recommends that any earnings variation because of a difference between the estimated load and the actual load be included in the Rate Stabilization Plan so that Hydro’s earnings will not vary. (Emphasis added)*

*The concern was clearly to ensure that Hydro was made whole in respect of additional costs and refunded amounts which represented income not expected to be received on the basis of its forecasts. There was never a suggestion that the RSP was intended to re-distribute cost responsibility among Hydro’s customers. If Hydro’s income was not affected, there was no need for the RSP to effect a rate change in response to any experienced result, whether or not that result varied from the forecast.”*

The main issue is with the monthly re-calculation of Average and Excess Demand factors which were used under the former cost of service methodology to assign costs to customer classes. The IC submit that the demand elements they should pay in the RSP were set by the Board in 1992 and that this recalculation is actually an alteration in the Board approved cost allocations. The fact that NLH has recalculated the demand elements each month since the Board implemented the 1992 report means that neither NP nor the IC have paid the “approved” allocated amounts. Mr. Osler, on behalf of the IC, submitted that in 2000 alone an amount in the order of \$1,500,000 in cost were transferred from NP to the IC as a result of the RSP calculations. (2<sup>nd</sup> Supplementary Evidence, C. F. Osler, pg. 9/1-2) The IC recommend that the Board recalculate and restate the RSP to calculate the proper balance in the industrial RSP since 1995. (IC, Final Argument, pg. 78)

The IC also objected to the continued use of Albright and Wilson and Royal Oak Mines load in determining the load variation for the IC after both these customers ceased operation. The IC submit that the RSP charges to the industrial portion of the plan arising from this load variation calculation be reversed from the dates on which those operations ceased in Newfoundland (IC, Final Argument, pg. 78).

NLH submits that the way in which NLH split the RSP balance between the Island IC and NP was understood and communicated to the IC and has been reviewed by the Board and its financial consultants a number of times since 1986. NLH argues it is difficult to accept the IC position that the RSP has not been implemented properly or that these customers were unaware of the implications or the manner in which the balance was split between retail and industrial customers. NP agrees with NLH's position on this issue.

The Board agrees with NP and NLH that there is no basis upon which to reallocate past RSP balances between the retail customers and the IC. It is the Board's view that both NP and the IC, as the two major stakeholders in the operation of the RSP, have had sufficient opportunity to question any aspect of the RSP directly, either with NLH or through a query to the Board since 1992. The IC were present at the December 1999 hearing dealing with the phase out of their portion of the rural subsidy and at the subsequent pre-hearing conference, which set the date and scope of the present hearing. No such questions were raised on either occasion concerning the NP/IC split in the RSP plan.

It is also apparent that there was communication between NLH and the IC regarding aspects of the RSP, as evident from correspondence filed in IC-284 and IC-286. The Board is not in a position to comment on whether the IC understood the correspondence and its implications or the manner in which the balance was split between NP and the IC. The Board can only assume that if there was a concern it would have been raised at the time. It is the view of the Board that NLH has consistently applied the rules as they were intended by the Board in 1986, and as communicated to the Board by NLH at that time. The Board does not agree with the IC that NLH has implemented the RSP improperly.

NLH has proposed that in future the allocation of the RSP balance be based on the customers' 12 months-to-date inventory/bulk transmission energy for the year in question. This change to the operation of the RSP will address the concern of the IC regarding the allocation of balances in the plan.

**The Board will not make any adjustments to the RSP prior period balances as requested by the IC.**

#### **10. Other Changes to RSP Proposed by NLH**

In addition to the issues addressed above NLH has proposed a number of other changes to the RSP as previously outlined. These other changes are restated below:

1. Hydraulic Production Variation
  - An addition of mini-hydro plants to the calculation of hydraulic production variation.
2. Load Variation
  - No longer include interruptible energy in the plan. Barrels relating to this energy will also be excluded from the fuel price variation calculation (along with the existing exclusion for barrels relating to emergency sales).

3. Customer Splits
  - No longer base the RSP split on test year Cost of Service Study (COS); instead use 12 month-to-date invoiced/bulk transmission energy, as well as test year Rural deficit allocation.
4. Rate Calculation
  - Establish energy rates on the same basis as split, i.e. 12 month-to-date invoiced/bulk transmission energy.
5. Other
  - Change finance charge from NLH's embedded cost of debt to NLH's WACC.

None of the intervenors took issue with these proposals and the Board finds them reasonable.

**The Board accepts the changes in the RSP as proposed by NLH with the exception of the price of No. 6 fuel, the Holyrood efficiency factor, the test year hydraulic production and the increase in RSP cap, which are dealt with elsewhere in this decision.**



## V. CAPITAL BUDGET

### 1. Introduction

Section 41 (1) of the *Act* states that “A public utility shall submit an annual capital budget of proposed improvements or additions to its property to the board for its approval not later than December 15 in each year for the next calendar year,…”

NLH’s 2002 capital budget was submitted for approval as part of this Application and proposed capital expenditures totalling \$48,037,000. During the hearing NLH revised this amount to \$40,946,000. The revisions included the following (NLH 2002 Capital Budget, Revised Oct. 31, 2001, pg. A-1; NLH 2002 Capital Budget, Revised Nov. 30, 2001, pg. A-1):

- |  |                             |
|--|-----------------------------|
| 1. Removal of a feasibility study into the generation of electric power through the harnessing of wind energy.                                     | (\$200,000)                 |
| 2. Removal of AS400 computers from the capital budget.   | (\$2,109,000)               |
| 3. Spreading over 2 years the replacement of the VHF Mobile Radio.   | (\$5,292,000)               |
| 4. Purchase of the existing leased AS400 computers and additional disc space.  | \$143,000                   |
| 5. Completion of the upgrade to TL262 (69 kV – Daniels Harbour to Peter’s Barren) which was delayed from 2001 due to environmental considerations. | <u>\$367,000</u>            |
|  | <u><b>(\$7,091,000)</b></u> |

On November 20, 2001 NLH filed an application requesting (i) approval of certain projects contained in the proposed 2002 capital budget filed as part of the General Rate Application and (ii) an order extending the interim rates charged the IC pursuant to Order Nos. P.U. 23 (1999-2000) and P.U. 25 (2000-2001). Upon filing the application, NLH explained that projects objected to by the parties had been withdrawn from the list for which NLH was seeking approval.

On December 20, 2002 the Board issued Order No. P.U. 30 (2001-2002) approving certain capital projects without prejudice to the parties’ rights to address argument on:

- (i) the sufficiency of the documents supplied to support capital projects generally or the principle and procedures applied in the capital budget process; and
- (ii) an adjustment to the 2002 capital budget to reflect NLH’s past capital spending practice.

On January 14, 2002 the Board issued Order No. P.U. 31 (2001-2002). This Order was in response to NLH’s application dated December 28, 2001 for approval of capital expenditure projects under \$50,000 and leases in excess of \$5,000. Order No. P.U. 31 (2001-2002) approved all projects contained in the application.

In final argument (pg. 94) NLH advised the Board that it was deferring three projects to which objection had been raised by one or more intervenors. These projects are (NLH, Final Argument, Schedule B, pg. 9/5-13; pg. 12/1-3):

<b>Project</b>	<b>Description</b>	<b>Amount</b>
B-23	Replace Two Air Compressors - Buchans	\$65,000
B-46	Replace 136 kW Diesel Unit No. 284 – Harbour Deep	282,000
B-57	Upgrade Diesel Plant – Harbour Deep	<u>515,000</u>
		<b><u>\$862,000</u></b>

NLH stated that the deferral of the Harbour Deep projects related to the continued uncertainty of the status of the community (NLH, Final Argument, pg. 94/27-29). The replacement of the air compressors at Buchans was deferred based on the condition of the compressors. (NLH, Final Argument, Schedule “B”, pg. 9/5-13)

NLH also advised in final argument that it was proposing to defer B-47, Replace 75 kW Diesel Unit No. 252, Petites (\$238,000) which was approved by the Board in Order No. P. U. 30 (2001-2002). (NLH, Final Argument, pg. 94/4-5) NLH stated the reason for deferring this project is the declining load in the community, and that the existing units should be able to meet this load. NLH also requested that Order No. P. U. 30 (2001-2002) be amended to cancel approval of this project. (NLH, Final Argument, pg. 95/9-10)

These deferrals result in a revised 2002 proposed capital budget of \$39,846,000.

## **2. Issues Raised During the Hearing**

Intervenors raised several issues with respect to the NLH’s proposed 2002 capital budget. These issues included the capital budget process, the standards for justification of capital expenditures, the adequacy of documentation provided, historical capital expenditures, and concerns about specific projects. These issues are dealt with below.

### **i) Standards for Justification and Adequacy of Documentation for Proposed Capital Expenditures**

NP-179 (pg. 3/13-20) indicates that the capital budget process at NLH involves the input of supervisory personnel with budgetary responsibility through to each level of management reporting to the Management Committee until it is eventually approved by NLH’s Board of Directors before being presented to this Board for approval. The process spans approximately nine (9) months from start to finish and involves the review and evaluation of each capital budget project for approval to move on to the next level of responsibility. After capital requirements are identified, projects are assessed based on the following criteria:

- (i) To protect human life;
- (ii) To prevent imminent interruption of service to customers;
- (iii) To protect Hydro’s assets against loss or damage;
- (iv) To maintain power system reliability and availability;

- (v) To comply with pertinent regulations, standards, etc. and environmental standards;
- (vi) To meet projected customer load demand; and
- (vii) To reduce costs and improve efficiency.

Mr. Roberts testified that to determine the cash available for its capital program, NLH uses as a guideline its net regulated income plus depreciation, recognizing that there may be years in which the guideline may be exceeded as a result of various capital requirements. (Transcript, Nov. 15, 2001, pg. 27/57-68)

In presenting its capital budget NLH states that *“the majority of the projects included in Hydro’s 2002 capital budget have no formal cost benefit studies supporting the decisions to proceed.”* (Revised Capital Budget, October 31, 2001, pg. B-6) Mr. Reeves testified that the dollar values used in the capital budget *“are done on primarily engineers’ estimates”*. (Transcript, Oct. 3, 2001, pg. 19/76 & 77) Most of the NLH witnesses were questioned extensively on this matter and it appears from the evidence that cost benefit studies were carried out in respect of only two projects. (Transcript, Nov. 5, 2001, pg. 32/37-43)

For example, in NP-117 (pg 1/22-23;25-27) NLH stated that a cost benefit analysis was not carried out at the time the VHF mobile radio system was purchased in 1989. Furthermore, the deferral of the replacement of the VHF system could jeopardize NLH’s ability to provide VHF mobile radio service to ensure the safety of personnel and efficient operation of the power system. In NP-117 NLH states that there are several equipment replacement options and briefly explains what these options are but, despite the existence of *“options”*, NLH waives the cost benefit study approach and prioritizes the project on the basis of safety and reliability. (Transcript, Oct. 3, 2001, pg. 21/61-79) During cross-examination of both Mr. Reeves and Mr. Budgell there were several examples discussed wherein projects were approved for inclusion in the capital budget using safety and reliability of service as the main criteria.

In commenting on the question of whether or not cost benefit studies should be put forward in support of some or all of the capital budget projects Mr. Reeves stated: *“...if the Board is feeling uncomfortable with what we’re providing, well then it might be more appropriate for the Board to give us an indication where they might need some extra information.”* (Transcript, Oct. 5, 2001, pg. 24/67-70)

Mr. Budgell, responding to questions from the IC, stated that not all of the decisions with respect to individual capital projects are supported by formal cost benefit studies. (Transcript, Nov. 6, 2001, pg. 28/10-31) He explained that when the level of safety or reliability of service to customers would be clearly jeopardized if a project did not proceed, a formal cost benefit study would not be done.

The IC submitted that NLH’s approach to its capital budget process is unacceptable since the exemptions that NLH imposes on itself to remove the requirements for cost benefit studies are so broad that virtually no projects require one. The IC further argued that NLH should more thoroughly investigate its capital budget proposals and prepare detailed analysis of the expected costs of the proposals before submitting them to the Board for approval. (IC, Final Argument,

pg. 85) The IC concluded that NLH's capital budget should not exceed its forecast depreciation cost for the year in question; that all projects not involving serious environmental or safety risks should require a cost benefit analysis; that projects involving serious environmental or safety risks should be supported by evidence describing the nature and the level of the risk; and, that generally NLH should provide the Board with more adequate justification in support of its capital budget proposals. (IC, Final Argument, pg. 93-94)

NP argues that while a utility's legal obligation to serve its customers may justify a capital expenditure where there are no reasonable alternatives, there are available options for many capital expenditure requirements. Where these options exist, NP submits that the obligation to provide electrical service at the least cost requires that they be subject to cost analysis. (NP, Final Argument, pg. C-40) NP further submits that NLH's six assessment factors are "*too broad to provide, in and of themselves, reasonable satisfaction of the regulatory least cost imperative*". (NP, Final Argument, pg. C-42) NP recommended that all material capital expenditures proposed by NLH should be subjected to cost benefit analysis, except where there are no reasonable alternatives to the proposed expenditures. NP also submitted that capital project justification should also include a discussion of the qualitative factors contributing to the decision to proceed with a project. (NP, Final Argument, pg. C-49)

The CA urged the Board to be cognizant of the possibility of duplication that may exist between the two utilities and suggested that the Board develop a test to determine if duplication exists prior to approving NP's or NLH's capital budget. (CA, Final Argument, pg. 39-40)

The *EPCA* mandates the Board to implement the power policy of the province and to apply tests which are consistent with generally accepted sound public utility practice. Furthermore, Section 3 (b) (iii) requires that utilities manage their facilities in a manner that enables power to be delivered to consumers at the least cost. The Board, while mindful of the overriding importance of safety and reliability of service, believes that cost benefit studies should be carried out wherever possible.

The Board has dealt with the issue of duplication under Other Issues beginning on **page ?** of this decision. The issue of duplication addressed by the CA in final argument in respect of the capital budget process is one which the Board believes can be addressed with both utilities during the annual capital budget approval process. Since this is NLH's first rate Application as a fully regulated utility the Board believes, as it has stated elsewhere in this decision, that regulatory practices and procedure respecting NLH's future activities which are subject to the Board's approval should commence with this Order. The Board also agrees with NLH's position outlined in its final argument (pg. 92/26-29) that "*if any additional justification or documentation is required, it should be determined by the Board and communicated to Hydro in advance of Hydro's submission of its next capital budget (2003) so that Hydro will have adequate time to respond*". To that end, the Board believes it is necessary to set forth the procedures to be adopted by NLH in presenting future capital budget applications.

**The Board will require NLH, commencing with its 2003 capital budget application, to use a net present value methodology together with supporting justification to evaluate projects of a material amount. Where a project is not evaluated against other acceptable alternatives and/or, if the project does not produce a positive net present value, sufficient rationale must be provided to justify implementation. The Board has set out guidelines to be used by NLH in future capital budget applications in Schedule 3, attached to this decision.**

**ii) Historical Capital Expenditures**

GT conducted a review of the actual versus estimated capital expenditures and determined that, from 1996-2000 inclusive, the total capital expenditures of NLH were lower than budget by an average of 15% after accounting for events that would be considered exceptional. (GT 2001 General Rate Hearing Report, pg. 14) GT further stated that, based on discussions with NLH officials, NLH is probably under spending by approximately 5% and that the remaining 10% variance must be due to delays and carryovers. (GT 2001 General Rate Hearing Report, pg. 15)

Under cross-examination by the IC, Mr. Brushett of GT confirmed the 15% variance and stated that, if NLH's projected capital budget for 2002 is 15% too high, the revenue requirement for the test year 2002 is overstated by \$424,000. (Transcript, Jan 8, 2002, pg 44/59-61; pg. 45/7-17). Mr. Brushett also pointed out that the real issue on this topic is not the approval of the capital expenditure but whether it would be appropriate to adjust the rate base projected for 2002 to reflect an allowance for under spending. (Transcript, Jan. 8, 2002, pg. 44/57-75)

In final argument (pg. C-50) NP submitted that the Board should reduce NLH's 2002 revenue requirement to reflect NLH's historical experience in over budgeting annual capital expenditures by 15%. The IC also support this reduction. (IC, Final Argument, pg. 95)

NLH outlined in its final argument (pg. 95-96/30-3) some of the action that it has taken to address the issue of under spending, including enhanced coordination between engineering and operations staff, more critical attention to completing projects in the year in which they are budgeted, focus on total project cost, and the use of new software tools to monitor and control project costs. NLH submitted that, if the Board was to consider an adjustment for under spending, that it should be no more than 4%, which was the adjustment applied to NP in Order No. P. U. 36 (1998-1999). (NLH, Final Argument, pg. 96/15-28)

The Board acknowledges the actions taken by NLH to address the issue of historical under spending. The Board also notes that the total variance percentage of actual expenditures to budget as shown on pg. 14 of GT's 2001 General Rate Hearing Report has been decreasing since 1998. Because of this the Board does not feel that a 15% downward adjustment would be fair or is necessary. However, the Board does believe that some downward adjustment should be applied and feels that a 7½% reduction is warranted.

**The Board will order that, for the purposes of establishing the revenue requirement, NLH reduce its approved capital budget by 7½%. This downward adjustment will reduce depreciation and interest expense as well as the forecast rate base for the 2002 test year.**

**iii) Contingency Fund**

In previous capital budget applications NLH has requested approval, and the Board has ordered the inclusion, of a contingency fund in the amount of \$1,000,000. The Board's intention for the contingency fund was to allow NLH to deal with emergency funding requirements of a capital nature. The Board notes that NP has a similar provision in place called "*Allowance for Unforeseen Items*". For consistency the Board will refer to NLH's fund in the same manner.

The Board believes that it is necessary to implement certain conditions regarding the type of project expenditures that should be made from the contingency fund, which will now be referred to as "*Allowance for Unforeseen Items*". These conditions are outlined below:

- i. The cost of the project must be greater than \$50,000.
- ii. The project must be seen, both by NLH and subsequently by the Board, to be urgent. Circumstances must require that immediate action be taken, and it must be evident that any delay resulting from the time taken to file an application with the Board could have serious negative consequences for the company, its customers, or the public. These consequences may be financial, or for reasons of safety or reliability.
- iii. A report must be filed with the Board detailing the circumstances of the need, the alternatives that have been considered, the financial effects of each of the alternatives, and reasons for the choice. Any reliability or safety issues should be reported in detail at this time. Also included must be a time line that indicates the date of the requirement for emergency action, the date of the decision of the company, the date upon which the action was begun, and the expected date of completion of the projects.
- iv. The reports on expenditures from the "*Allowance for Unforeseen Events*" for the year must be entered as part of the Application for Approval of the Capital Budget for the following year.
- v. The "*Allowance for Unforeseen Events*" will be considered by the Board annually at the time it considers the NLH capital budget and may be varied from year to year. Unused balances in the account will not carry forward.

**The Board will approve an "*Allowance for Unforeseen Events*" of \$1,000,000 as part of the 2002 capital budget but will impose conditions on its use.**

**iv) 2002 Test Year Capital Budget**

Pursuant to Section 41 (1) of the *Act*, as indicated previously NLH is requesting approval of a total capital budget of \$39,846,000. While there were questions asked of NLH witnesses regarding several of the projects proposed, only three projects were raised as significant concerns. These projects were B-66 (VHF Mobile Radio system) and two projects relating to Harbour Deep (B-46 and B-57). As NLH has deferred the Harbour Deep projects no further comment will be made on those projects at this time.

The VHF Mobile Radio system as proposed by NLH is part of NLH's broader Telecommunications Plan. This plan was presented to the Board in 1997 and an updated schedule was filed at the request of the Board as part of NLH's 2001 Capital Budget application. The original plan proposed replacement of certain portions of the VHF Mobile Radio system. This proposal requests approval to replace the entire VHF Mobile Radio system at a total cost of \$8,700,000. NLH proposes spending \$3,081,000 as part of the 2002 Capital Budget with the remainder to be spent in 2003.

NP, in final argument, (pg. C-42 to C-44) detailed the history of this project as part of the Telecommunications Plan and submits that the fact that NLH has maintained that no formal cost benefit analysis of the Telecommunications Plan is necessary "*defies any notions of least cost management of electrical system investment that no cost justification was attempted by Hydro for the original plan nor the materially more expensive current version*". (NP, Final Argument, pg. C-43) NP's position is that justification of an expenditure such as the proposed VHF Mobile Radio system clearly warrants cost analysis of the viable alternatives. (NP, Final Argument, pg. C-44)

The CA noted in final argument (pg.40) the absence of a formal cost benefit study for this project. The CA submitted that there were indications that both utilities should be sharing in one VHF Mobile Radio system and that, until this issue is resolved, no money should be provided to NLH for a VHF Mobile Radio system.

NLH provided additional justification on this project as part of its final argument. (NLH, Final Argument, Schedule "B", pg. 17-22). NLH submits that "*the evidence is clear that the VHF Radio System is a critical system required by Hydro to complete its maintenance and to provide communications link between field personnel and the Energy Control Center, as well as communications within a line crew and between crews. The evidence is equally clear that the existing system is obsolete and no longer is supported by the original manufacturer. It is not possible to get replacement parts nor does Hydro have enough spare parts in inventory to adequately support this system.*" (NLH, Final Argument, Schedule "B", pg. 20/19-25)

The Board has noted the submissions of the intervenors with respect to this project. The additional justification provided by NLH in its final argument was helpful to the Board in understanding the scope of the project and the technical and safety issues involved but the Board believes that further justification of this project is required.

**The Board agrees that further justification should be completed of NLH's proposal to replace its VHF Mobile Radio system, including a cost benefit analysis of alternatives. The Board will also require NLH to prepare and file an updated version of its Telecommunications Plan with the Board.**

**The Board will approve the remaining capital budget projects not approved in P.U. 30 (2001-2002) with the exception of B-66 (VHF Mobile Radio system).**

**The Board will approve a 2002 test year capital budget of \$36,765,000, adjusted to remove the VHF Mobile Radio system project.**



## **VI. RATE BASE**

### **1. NLH Proposals**

NLH proposes under Section 14 (9) of the Application that the long term return on rate base be set based on current market conditions at 9.5%.

NLH further proposes under Section 14 (10) that the estimated 2002 average rate base be \$1,370,471,000; and under Section 14 (11) that, interim for this Application, the return for NLH in 2002 on that rate base be 7.4% given a return on equity (ROE) sought by NLH of 3%. (Pre-filed Evidence, J. C. Roberts, Schedule II, pg. 1; K. C. McShane, pg. 5/54-55) In final argument (pg. 35,36/31-8) NLH submits:

*“Because the provincial guarantee of Hydro’s debt permits Hydro to operate with a lower capital structure than otherwise, Hydro proposes that the following targets be adopted in the short term: ...3. a return on rate base of \$98,319,000 (Schedule VIIA, J.C. Roberts, pre-filed evidence) or 7.2%.”*

### **2. Background**

Section 80 (1) of the Act states:

*“A 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 for each type or kind of service supplied by the public utility ....”*

NLH is requesting the following assets be included in the rate base for the 2002 test year:

- Average capital assets
- Cash working capital allowance
- Fuel Inventory
- Supplies Inventory
- Deferred realized foreign exchange losses.

Cash working capital allowance and deferred realized foreign exchange losses are somewhat contentious or unusual items which require separate consideration and comment as noted below.

### **3. Cash Working Capital Allowance**

Cash working capital allowance (CWCA) reflects the average amount of capital provided by investors above and beyond investments in plant and other separately identified rate base items that bridge the gap between the time expenditures are made to provide service and the time payment is received for the service. (Pre-filed Evidence, K. McShane, pg. 6/7-12) Schedules III, IV, V and VI of Mr. Roberts pre-filed testimony detail the calculation and analysis of the CWCA.

With the exception of the witness for LC/W, Mr. Drazen, there were no substantial comments or changes suggested to disagree with the approach taken by NLH. Mr. Drazen expressed the view that the calculation should recognize the timing difference between the payment of semi-annual long-term bond interest and the receipt of the funds for their payment. (Pre-filed Evidence, Mr. Drazen, pg. 3-6) The intervenors questioned Mr. Drazen as to why this method is not used in other jurisdictions.

Mr. Brushett of GT agreed in principal with Mr. Drazen's proposal stating: "*conceptually I would agree that it's reasonable but I haven't done a detailed review of his calculations and what all the impacts are*". (Transcript, Jan. 8, 2002, pg 43/22-48)

The IC accepted Mr. Drazen's recommendation to take into account the lag related to interest expense on bonds payable semi-annually in the calculation of the CWCA. (IC, Final Argument, pg. 116)

NLH submitted in final argument (pg. 49) there is insufficient evidence before the Board to support Mr. Drazen's recommendation.

The Board agrees in principle with Mr. Drazen's proposal and acknowledges that there appears to be a benefit to NLH from the timing of funds received and the payment of interest on long-term bonds. The Board also recognizes the comments of Mr. Brushett of GT, who stated that a detailed review of Mr. Drazen's calculations or an analysis of the full impact of any benefits or costs has not been prepared.

**At the present time the Board will not act to adjust the CWCA to reflect the timing difference between the payment of semi-annual long term bond interest and the receipt of the funds for their payment. The Board feels this issue warrants further consideration and will require NLH to submit to the Board, prior to the next rate application, an analysis of this issue.**

#### **4. Foreign Exchange Losses**

The realized foreign exchange losses relate to the issuance of Swiss franc and Japanese yen denominated debt. The first loan was issued in 1979 and the repayments were completed in 1997. Prior to the 1985 rate referral NLH only recognized foreign exchange losses when they were realized. At the 1985 referral and the subsequent 1992 referral NLH requested a change in policy to recognize estimated losses and amortize them over a period of five years. The Board recommended that NLH commence recording an amortization of \$1,000,000 per year related to the probability of an exchange loss on the Swiss franc loan. As of January 1, 2002 this amortization provision amounted to \$10,000,000. The total unamortized realized foreign exchange losses after the repayment of the loans in 1997 were \$96,278,000.

Subsections 17(3)(b) and (e) of the *Hydro Corporation Act*, as amended in 1996, stipulate that all foreign exchange losses be amortized over a 40 year period commencing in the year when NLH's rates are first altered by the Board.

NLH is proposing that the \$10,000,000 accumulated provision be netted against the total realized foreign exchange losses of \$96,278,000 and the balance be included in revenue requirement at a rate of \$2,157,000 per year. NLH is requesting that the unamortized portion of the realized foreign loss be included in the rate base because NLH must continue to finance this balance until it is fully recovered.

The methodology, calculation and regulatory requirements related to NLH's proposed treatment of foreign exchange losses were reviewed by GT as part of its 2001 General Rate Hearing Report (pg. 7-8) None of the intervenors took issue with NLH's proposal.

**The Board accepts NLH's proposed treatment of amortizing the foreign exchange loss at the rate of \$2,157,000 per year and its inclusion in the 2002 test year revenue requirement with the average balance of \$85,200,000 forming part of the rate base.**

## 5. Rate Base

The total revised rate base for the test year is \$1,367,557,000. (Supplementary Evidence, J.C. Roberts, Schedule IIA, pg. 1) This amount compares to the "*as filed*" rate base of \$1,370,471,000.

Net capital assets of \$1,243,290,000 for 2002 represent NLH's actual capital asset balances as of December 31, 2000 which have been adjusted for the impact of the Board approved 2001 capital budget and the projected capital budget for 2002, reduced by the accumulated depreciation allowances, contributions in aid of construction and the Muskrat Falls assets in each year. The average of the net capital assets for 2001 and 2002 is included in the 2002 rate base. NLH's 2002 capital budget was revised by the Board and is dealt with beginning on **pg. ?** of this decision.

Fuel inventories are calculated on a thirteen-month average and supplies inventories are estimated based on December 2000 balances. No intervenors took exception to inclusion of these items in rate base or to the manner in which they were determined.

The "*as filed*" rate base was reviewed by GT as part of its 2001 General Rate Hearing Report (pg. 7) and GT concluded there were no discrepancies in the calculation and that the items, excepting deferred foreign exchange losses, are reasonable and appropriate in reference to legislative guidance and normal regulatory practice. Following further analysis, GT concluded that utilizing other mechanisms to recover financing costs would undoubtedly add complexity to the regulatory process and the proposal by NLH of including these deferred losses in rate base is reasonable. (GT 2001 General Rate Hearing Report, pg. 8)

NLH recited conclusions in GT's report regarding rate base in support of its final argument. (NLH, Final Argument, pg. 48/9-22)

In final argument the IC indicated that, once the Granite Canal project has been placed in service and NLH has completed the required study, consideration should be given to whether the GNP generation continues to be useful overall (and for the non-GNP customers) and whether it

should be removed from rate base or assigned to rural customers. (IC, Final Argument, pg. 37) This issue has been considered by the Board on pg. 110 of this decision.

**The Board approves the approach and methodology used by NLH in determining the 2002 test year rate base.**

## 6. Return on Rate Base

The return on rate base is the just and reasonable return as per Section 80.(1) of the *Act* that fairly compensates a utility for the use and risks inherent in its investment. The first step in determining the rate to be applied to the rate base is to establish the type and amount of capital used to finance the utility. Mr. Roberts details the three types of capital used to finance NLH rate base. (Supplementary Evidence, J. C. Roberts, Schedule VIIIA) The three types are long and short-term debt, liability for employee future benefits and retained earnings. The average of 2001 and 2002 forecast is as follows:

<u>Capital</u>	<u>%</u>
Long and short term debt	83.38
Employee future benefits	1.55
Retained earnings	<u>15.07</u>
<b>Total</b>	<b><u>100.00</u></b>

Each component of capital is allowed a specific rate of return.

NLH is allowed to recover the costs of financing its long and short term debt. NLH's total debt is \$1,314,468,000 with a cost of \$106,923,000. The cost expressed as a percentage of long and short-term debt is 8.134%. (Supplementary Evidence, J. C. Roberts, Schedule IXA)

Employee future benefits are deemed no cost capital since they are provided by the ratepayers rather than the investors. (Pre-filed Evidence, K. McShane, pg. 13/16-21). Effectively, the cost of this source of capital is included in the annual expense recorded for employee future benefits which is calculated actuarially.

The rate of return on equity is normally determined by a number of factors, such as risk, national rating standards for similar utilities, actual capital structure ratios and various other guidelines used by debt rating agencies. For the test year these factors are not considered because NLH is requesting an ROE of 3%, which the Board acknowledges is well below market. (See pg. 44 of this decision)

The calculated rate of return allowed for each component of capital is expressed as a percentage of its portion of capital. Mr. Roberts details the calculation to arrive at a weighted average cost of capital of 7.234% as shown in Table 6. (Supplementary Evidence, J. C. Roberts, Schedule VIIIA)

<b>Table 6</b> <b>Weighted Average Cost of Capital</b> <b>Proposed for the 2002 Test Year</b> <b>\$(000)'s</b>						
Types of Capital	2001 \$	2002 \$	Average \$	Percent	Cost %	Weighted Average %
Long & Short-term Debt	1,234,963	1,393,973	1,314,468	83.38	8.134	6.782
Employees Future Benefits	23,832	25,075	24,454	1.55	0.000	0.000
Retained Earnings	<u>267,256</u>	<u>208,170</u>	<u>237,713</u>	<u>15.07</u>	3.000	<u>0.4520</u>
<b>Total Capital</b>	<b><u>1,526,051</u></b>	<b><u>1,627,218</u></b>	<b><u>1,576,635</u></b>	<b><u>100.00</u></b>		<b><u>7.234</u></b>

NLH's return on rate base is adjusted to exclude the rural interconnected and isolated assets from equity for the purposes of determining return. As a result NLH is only allowed an average cost of debt return on these assets. The return on rate base as calculated by NLH for the 2002 test year is \$98,319,000 as shown in Table 7. (Supplementary Evidence, J. C. Roberts, Schedule V11A)

<b>Table 7</b> <b>Return On Rate Base</b> <b>Proposed for the 2002 Test Year</b> <b>\$(000)'s</b>				
Component Base	2002 \$	Weighted Average Cost of Debt %	Weighted Average Cost of Capital %	Return on Rate Base \$
Rural Interconnected & Isolated Assets	134,978	6.782		9,154
Other Rate Base Assets	<u>1,232,579</u>		7.234	<u>89,165</u>
<b>Average Rate Base</b>	<b><u>1,367,557</u></b>			<b><u>98,319</u></b>

With a view to the long term return on rate base of 9.5% proposed in this Application, NLH points out in its final argument that a full return on rate base can be decided by the Board when NLH requests same and in light of economic and capital market conditions prevailing at the time. The specific approach (i.e. the specific tests) for a fair return on rate base can also be left to the time when NLH asks for approval of a commercial return. (NLH, Final Argument, pg. 38/5-10)

The Board notes other decisions affecting return on rate base are contained under Capital Structure beginning on pg. 33 of this decision. An example of this is the decision of the Board to reduce interest costs in NLH's 2002 revenue requirement to reflect the cost of dividends in excess of NLH's dividend policy. This decision will have the estimated effect of reducing return on rate base to 7.134% as follows:

<b>Return on Rate Base Following Dividend Adjustment<sup>5</sup> \$(000)'s</b>						
<b>Types of Capital</b>	<b>2001 \$</b>	<b>2002 \$</b>	<b>Average \$</b>	<b>Percent</b>	<b>Cost %</b>	<b>Weighted Average %</b>
<b>Long &amp; Short-term Debt</b>	1,234,963	1,332,891	1,283,927	81.43	8.134	6.624
<b>Employee Future Benefits</b>	23,832	25,075	24,454	1.55	0.000	0.000
<b>Retained Earnings</b>	<u>267,256</u>	<u>269,252</u>	<u>268,254</u>	<u>17.01</u>	3.000	<u>0.510</u>
<b>Total Capital</b>	<b><u>1,526,051</u></b>	<b><u>1,627,218</u></b>	<b><u>1,576,635</u></b>	<b><u>100.00</u></b>		<b><u>7.134</u></b>

This reduction and other appropriate adjustments will have to be made to NLH's regulated return on rate base of 7.234%.

**NLH will be required to file a revised rate base and revised calculation of return on rate base which reflects the decisions of the Board.**

<sup>5</sup> Remove \$61,084,000 of dividends [67,082,000 - 5,998,000 (7,997,000 x 75%)] Ref: Supplementary Evidence, Oct. 31, 2002, J.C. Roberts, Schedule VIIIA and Schedule X11A

## VII. COST OF SERVICE

### 1. Introduction

The Cost of Service (COS) methodology used by NLH in this hearing was the subject of a special generic hearing before the Board in 1992. In 1993 the Board issued a report<sup>6</sup> to the Minister of Mines and Energy dealing with cost of service issues for NLH. The report included 23 specific recommendations on COS methodology and recommended that NLH use the generic methodology at its next rate referral. The report was filed as evidence in this hearing in LC-1. This hearing is the first rate hearing since the COS methodology was approved.

The Board's 1993 generic COS report contained the following interim recommendations:

1. Recommendation 8: that a 1 CP<sup>7</sup> allocator be approved for interim use in the island interconnected system and that NLH present to the Board at the time of its next rate hearing an analysis of the relationship between load factor<sup>8</sup> and system reserve requirement<sup>9</sup>, together with a recommendation regarding the number of peaks on which the CP allocator for generation demand costs should be based.
2. Recommendation 14: that NLH examine the practicality of attributing system energy losses to rate classes on a time differentiated basis and report its conclusions as to both practicability and impact on allocated costs at the time of its next rate referral.
3. Recommendation 19: that NLH's proposed classification of distribution cost be accepted for interim use and that NLH prepare a revised study of distribution cost for presentation to the Board at the time of its next rate referral.
4. Recommendation 21: that subject to the provisions of recommendation 19, NLH's proposed methodology be approved for the Labrador interconnected and rural isolated systems.

As recommended in the 1993 generic COS report the methodology used by NLH in this hearing is an embedded cost of service study which allocates the costs of the utility for existing plant and operating expenses. NLH submits that its current filing complies with all recommendations of the 1993 report and that, while judgment must be exercised with respect to certain cost of service methodology issues, it has made its proposals based on what it perceives to be the most fair and equitable for all customer classes.

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<sup>6</sup> "Report of the Board of Commissioners of Public Utilities to the Honourable Minister of Mines and Energy, Government of Newfoundland and Labrador on a Referral by Newfoundland and Labrador Hydro for the Proposed Cost of Service Methodology and a Proposed Method for Adjusting its Rate Stabilization Plan to Take into Account the Variations in the Rates set by the Board to be Charged by Newfoundland Light and Power Co. Limited to its Customers", February 1993 (hereafter referred to as the 1993 generic COS report)

<sup>7</sup> Coincident peak (CP) is the sum of two or more peaks that occur in the same time interval. CP is the demand of each customer or customer class at the time of system peak demand. CP demand is often used to allocate costs when setting rates for service since the costs of providing service is higher at that time.

<sup>8</sup> Load factor is the ratio of average load to peak during a specific period of time, expressed as a percentage. The load factor indicates to what degree energy has been consumed compared to maximum demand, or the utilization of units compared to the total system capacity.

<sup>9</sup> System reserve requirement is equipment and capacity that is available and is in excess of that required for load.

The Board agrees that most of the COS issues were dealt with in the 1993 generic COS hearing and should not be reconsidered here. As well, in Order P.U. 25 (2000-2001), NLH was ordered to prepare its rate filing based on the 1993 generic COS methodology. Accordingly the Board will only comment on those issues raised with respect to the COS methodology and the interim recommendations noted above or those issues that represent a change from that intended by the Board's 1993 generic COS report.

## **2. Allocation of Generation Demand Costs**

In the 1993 generic COS hearing the Board found that a CP allocator would be preferable for allocating generation demand costs, however, the Board was unable to decide whether cost causation would be best measured by a single or multiple CP allocator. The Board did state that a 1 CP allocator appears to correlate best with a major part of the costs but also recognized that a multiple peak allocator would assign some costs to those class demands not necessarily coincident with the system annual peak. The 1993 generic COS report recommended that a 1 CP allocator be approved for interim use for the Island Interconnected system. (Recommendation # 8, 1993 generic COS report) NLH was also requested to complete an analysis of the relationship between load factor and system reserve requirement and make a recommendation regarding the number of peaks on which the CP allocator should be based for generation demand costs at the time of its next rate hearing (1993 generic COS report, pg. 23-24).

In response to NP-135 NLH filed a study entitled "*An Analysis to Determine the Relationship Between Load Factor and System Reserve Requirement*", prepared by NLH's System Planning Department in April 2001. Loss of load hours (LOLH) refers to the number of hours in a year that system capacity is unable to meet system load requirements. The LOLH study is a guide to the use of CP allocators and shows those times when NLH might be at risk of losing load, of not being able to provide sufficient power for firm customers.

The study concludes that the greatest LOLH contributions are made in the peak month of February (65% contribution at 60% annual load factor), followed by January (21% contribution at 60% annual load factor). As the annual load factor increases the portion of the LOLH contributions for January and February combined increases occur from 71% at a 50% annual load factor to 96% at a 70% annual load factor. The contribution from the remaining months is a relatively minor portion of the annual LOLH. The study recommended that the allocation of generation demand costs should be based on the CPs of the two peak months (i.e. a 2 CP cost allocator). NLH accepted these study results and used a 2 CP allocator in this Application. Mr. Brickhill reviewed the loss of load hours study as part of his evidence and concluded a "*greater risk of loss of load hours largely in two winter months*" with the probability increasing as the load factor increases. (Pre-filed Evidence, J. A. Brickhill, pg. 8-9)

The only party who took significant issue with the study results was NP, who argued that the study time frame of 1990-1994 was limiting. NP argued that by not updating the analysis to reflect the years 1995-2000, NLH excluded years in which peaks occurred primarily in December or March. Mr. Brockman, on behalf of NP, recommended the use of a 4 CP allocator for the following reasons (NP, Final Argument, pg. G-3;G-4):



- 1) the system peak can occur in any one of the four winter months and NLH is unable to predict which month the peak will occur;
- 2) a single peak is not what determines the timing of generation additions under NLH's LOLH planning criteria; and
- 3) use of only two months in cost allocation is unstable because the choice of peak months in the test year can affect the cost sharing among customer classes. NLH does not know in which two of the four months the peaks will occur.

NP also states in its final argument (pg. G-2) that the Board expressed a preference for a multiple peak allocator in their 1993 generic COS report.

Mr. Bowman recommends a 1 CP allocator from a cost causality perspective and because NLH uses 1 CP for allocating costs for its other systems. Mr. Bowman acknowledged that a 1 CP allocator is more volatile and recommends that, if the Board does prefer a multiple CP allocator in order to avoid volatility, a 4 CP allocator be approved because it reflects the fact that four winter months all contribute to LOLH. (Pre-filed Evidence, C. D. Bowman, pg. 8)

Mr. Osler recommended a 1 CP allocator because the peak month contributes more to the LOLH than the other three months combined. He also recognizes that a 1 CP approach may create concern over stability to the extent that variability in the month when the system coincident peak occurs is associated with materially different 1 CP allocators for the rate classes. (Supplementary Evidence, C. Osler, Pg. 16/31-34) This issue was not raised by any of the other parties.

NLH stated in its final argument (pg. 62) that, while the study supports the use of a 2 CP allocator, the use of a 1 CP allocator is also appropriate.

The choice of the CP allocator for the test year does affect the proportion of costs each customer class will pay. It is relatively more advantageous to the IC to utilize 1 CP and relatively more advantageous to NP to use multiple CPs. IC-244 shows the impact on NP's costs of using 3 CP and 4 CP allocators. The use of a 4 CP allocator reduces NP's costs by \$365,000 in the test year. (NP, Final Argument, pg. G-5)

The Board has already ordered that the coincident peak demand method be used for the allocation of generation demand costs. Variations in peak demand methods for cost allocation (such as the use of a single CP versus a multiple CP) are generally around the number of system peak hours analyzed, which in turn depends on the utility's annual load shape and on system planning considerations.

It appears from the evidence that system planning is done on the basis of the peak occurring sometime in the winter period starting in December. (Transcript, Nov. 5, 2001, pg.40/37-44) Mr. Budgell confirmed, under cross-examination by the IC, that the forecast peak for each year as shown in Schedule X of his evidence is derived from econometric modeling and is based on a combination of weather conditions and customer loads. (Transcript, Nov. 5, 2001, pg. 40/48-55) Only one peak is modeled and NLH does not care when it occurs, but only that it occurs. The fact that this system peak does not occur in February (as indicated in the LOLH

study) but in some other month is not relevant to the allocation of costs attributed to the various customer classes contributing to the system peak. NLH does not concern itself with trying to predict the second or higher coincident peaks nor does it have to for system planning purposes.

**The Board is not convinced that the LOLH study provides sufficient evidence to justify using a 2 CP allocator for generation demand costs. Furthermore, the Board is not persuaded that the use of any other multiple allocator is correct in this situation. The Board finds that the evidence supports the use of a 1 CP allocator and the Board will order that NLH use a 1 CP allocator for allocation of generation demand costs.**

### 3. Classification and Allocation of Distribution Costs

There are two methods normally used to split certain distribution costs between the customer and the demand component, namely the zero intercept method<sup>10</sup> and the minimum system method<sup>11</sup>. At the 1993 generic COS hearing NLH proposed that distribution costs be classified in accordance with the zero intercept method. The Board agreed with NLH's opinion that the choice of method had little impact on cost sharing between classes and accepted NLH's proposal at that time. However the Board had concerns with the method proposed to be used by NLH to obtain the zero intercept cost of poles. As a result the Board accepted NLH's proposed classification of distribution costs but required NLH to prepare a revised study of distribution costs for presentation to the Board at the time of its next rate referral (Recommendation #19, 1993 generic COS report). The Board also accepted NLH's proposal to allocate the distribution demand costs using a 1 CP allocator (Recommendation #20, 1993 generic COS report).

Mr. Brickhill outlined NLH's response to this recommendation in his pre-filed testimony stating that the requested study was first prepared in 1996, updated in 1998, and further updated in 2000 for the purposes of this filing. (Pre-filed Evidence, J. A. Brickhill, pg. 2) The 1998 study recommended the use of the zero intercept method because it avoids the classification of small components of total cost to demand, as is inherent in the minimum system study. Mr. Brickhill states that the current zero intercept results of the updated study are consistent with the similar analysis used in the 1992 rate hearing. (Pre-filed Evidence, J. A. Brickhill, pg. 4) He also stated that limitations in data availability still impair the preparation of a minimum system study. Copies of the 1996, 1998 and 2000 studies on the distribution system cost classification were filed in response to NP-123.

This issue did not receive much debate or examination at this hearing. The only COS witness who raised the issue was Dr. Wilson. He does not agree with the use of the zero intercept method to divide the distribution system costs between the customer and demand classifications. Dr. Wilson's position is that a "*zero load size methodology*" ignores the basic fact that the costs associated with investments in distribution lines and related equipment are part

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<sup>10</sup> Zero intercept method is the method which seeks to identify that portion of plant related to a hypothetical no-load or zero-intercept situation. It separates demand-related costs from customer-related costs by use of a regression equation.

<sup>11</sup> Minimum system method is the method of classifying distribution plant which assumes that a minimum size distribution system can be built to serve the minimum loading requirements of the customer. This is then valued at the average book cost and classified as customer related costs. The demand related costs for each account are the difference between the total investment in the account and the customer-related costs.

of an integrated power delivery network and have been sized to meet the expected loads placed upon them. They are not customer specific facilities that are causally attributable on the basis of customer counts. (Pre-filed Evidence, Dr. J. W. Wilson, pg. 28) Dr. Wilson states that:

*“The consequence of the failure of the minimum-size or zero intercept methodology to provide a reliable basis for classifying customer-related costs is that the customer-related component of distribution facilities should largely be limited to clearly identifiable, directly assigned costs like accounting and billing, meters, and service line drops.”*(Pre-filed Evidence, Dr. J. W. Wilson, pg. 30).

NLH confirmed in PUB-69 that most integrated utilities in North America rely on the minimum system method rather than the zero system method. NLH also clarified that the data limitations that preclude NLH preparing a minimum system study relate primarily to the way in which NLH’s system developed. NLH’s rural systems were acquired at various times from various entities, sometimes for a nominal fee, meaning that detailed records regarding the age and quantity of much of the distribution plant are not available.

It was not clear from the evidence in this hearing what cost impacts result for customers from the use of the zero intercept approach versus the minimum system approach. It is noted that in the 1993 generic COS report the Board accepted NLH’s opinion at the time *“that the methodology used does not have a great impact on cost sharing between classes”* (1993 generic COS report, pg. 47). Mr. Brickhill does acknowledge that the result of using the zero intercept methodology is a somewhat lower proportionate classification to the customer component than generally used by Canadian utilities. (Pre-filed Evidence, J. A. Brickhill, pg. 5) Although Dr. Wilson does not agree with the methodology, no other party contested NLH’s position and there is not sufficient evidence on the record to support or require further consideration by the Board at this time.

**The Board finds that the use of the zero intercept method for classification of distribution system costs as proposed by NLH is an acceptable method for dividing distribution costs into demand and customer related components.**

Both Dr. Wilson and Mr. Bowman also questioned NLH’s proposal to allocate all non-customer distribution system costs on the basis of coincident peak. They suggest that it is the local loads, and not the system coincident peak, that determine cost levels on the distribution system. Both propose that a non-coincident peak (NCP)<sup>12</sup> demand allocator for distribution capacity is generally thought to be more reasonable for cost allocation (Pre-filed Evidence, Dr. J. W. Wilson, pg. 17; Pre-filed Evidence, C. D. Bowman, pg. 8-9).

As pointed out by Mr. Brickhill, since there are no distribution costs allocated to NP and IC, this issue only affects NLH’s Island Interconnected Rural customers (whose rates are not determined by the COS), Isolated Rural customers, and Labrador Interconnected customers. Distribution load requirements on the rural isolated systems are not sized based on local loads but rather the anticipated peak, supporting the use of 1 CP allocator. On the Labrador Interconnected system the distribution network is sized based on a cold weather driven peak, also

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<sup>12</sup> Non-coincident peak (NCP) is a customer’s maximum energy demand during any stated period.

supporting the use of a 1 CP method which, according to Mr. Brickhill, links cost causation and costs better than the NCP method in this circumstance. The use of the 1 CP allocator for distribution demand costs was not challenged by NP or the IC.

**The Board accepts the use of a 1 CP allocator for distribution demand costs, as approved by the 1993 generic COS methodology.**

#### **4. Assignment of the Great Northern Peninsula Plant**

The Great Northern Peninsula (GNP) interconnection involved an extension of the existing 138 kV line through to the St. Anthony/Roddickton area as well as interconnection of approximately 20 MW of generation to the grid. The GNP interconnection was completed in 1996 at a cost of \$31,418,995. NLH received \$5,000,000 from a Canada/Newfoundland Infrastructure grant resulting in a net cost of \$26,418,995. The estimated annualized net cost of the GNP Interconnection is \$2,290,000 (CA-35).

The following customer classes changed as a result of the interconnection: Rate 1.2 Domestic Diesel; Rate 1.23 Churches, Schools and Community Halls; and Rate 2.5 General Service Diesel. NLH confirms that all these classes benefited from the interconnection. (IC-125) As a result of the interconnection revenue decreased across these customer classes by approximately \$2,750,000 for 2000. (Actual revenue of \$1,400,000 at interconnected rates versus \$4,150,000 at diesel rates prior to interconnection.)

The Board examined the following issues surrounding NLH's proposed treatment of the costs of the GNP interconnection in the 1995 Study on Rural Electrical Service: 1) the prudence of the interconnection; 2) cost assignment; and 3) cost classification. In its final report to the Government the Board did not deal with the issue of prudence, stating clearly that, since the project had not come before the Board for review before the decision was made by NLH to proceed, the Board was not able to deal with this issue. The Board did, however, consider and make recommendations on NLH's proposals for the cost assignment.

The 1993 generic COS report includes a number of recommendations related to the treatment of costs for the GNP interconnection. These were outlined in the Board's 1995 Rural Electrical Service Report (pg. 39) as:

##### Assignment of Costs

- The cost of transmission dedicated to serve one customer should be specifically assigned<sup>13</sup>, and costs of (plant and equipment of) substantial benefit to more than one customer should be apportioned among all customers.

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<sup>13</sup> Specifically assigned costs are costs associated with services or products that are of benefit to a single customer or class of customers. This implies that the facilities can be considered entirely apart from the integrated system. Costs associated with services or products that are of joint benefit to all customers or classes of customers are referred to as common costs.

- Transmission lines dedicated to the service of Newfoundland and Labrador Hydro rural rate classes be included in a sub-transmission function, which means that the costs attributed thereto should be allocated exclusively to such classes.

#### Classification of Costs

- That the transmission lines and substations of the Island Interconnected system used solely or dominantly for the purpose of connecting remotely located generation to the main transmission system be classified in the same manner as the generation stations they serve.
- That all plant costs relating to gas turbine and diesel generation in the Island interconnected system be classified as demand related.
- That the cost of gas turbine and diesel fuel in the Island Interconnected system be classified to demand and that variable operating costs and all other fuel costs be classified as energy.

The issue of assignment of costs (common versus specifically assigned) was considered at the 1995 hearing on Rural Electrical Service. The Board's report outlines the position of NLH and NP at pg. 6/42-43. NLH argued at the time that the interconnection is of benefit in three ways: (1) it provides additional generation reliability to all customers; (2) the plant provides emergency back-up and energy to the GNP area; and (3) the capacity of the plant defers future peaking capacity additions. For this reason NLH proposed treating the generation assets as common. NP disagreed, stating NP's requirements did not cause the St. Anthony/Roddickton system to be interconnected, nor do NP's customers receive any benefit from the interconnection. NLH proposed in 1995 to treat the generation plant as common and to treat the related transmission line as specifically assigned to rural interconnected. It was noted that more than one customer will be served by the transmission line extension to the GNP. (1995 Rural Electrical Service Report, pg. 43)

In the 1995 Rural Electrical Service Report (pg. 43) the Board stated that it did not feel it had sufficient evidence before it to make a final determination on the issue. The Board was also concerned with the inconsistency in treatment between the generation and transmission assets. As a result the Board made an interim cost treatment decision until further information was presented at a future hearing as stated below:

*“The Board concludes that the treatment of the Great Northern Peninsula interconnection by Newfoundland and Labrador Hydro in its cost of service study requires modification. Until such time as a more detailed study of proper assignment for the rural interconnected system can be concluded, the following recommendations are proposed: both the 138 kV transmission line and generation assets should be treated as common in the assignment of costs; and transmission assets, related to transmission lines of lesser voltage, should continue to be treated as specifically assigned, through a sub-transmission function. This treatment is of an interim nature until the Board re-examines the cost assignment rules at a future hearing.”*

This recommendation was also carried forward to the Board's 1996 Report on Rural Electrical Service.

Clearly the Board felt that, at the time of the 1995 hearing, it did not have sufficient information or evidence before it to make a final decision on cost assignment for the GNP. The question at present is whether the Board now has the evidence to make a final determination on the issue. NLH did not submit further studies or evidence in the present Application to support the interim recommendation of the Board. NLH merely stated that it concurred with the recommendation of the Board and that it had prepared its Application based on that recommendation. The evidence that the Board now has before it to consider this issue as set out in the pre-filed testimony of Mr. Budgell, information requests and cross examination of NLH witnesses.

NLH has proposed in this Application that generation and associated transmission assets on the GNP be assigned as common consistent with the Board's 1996 recommendation. IC-215 describes the guidelines that NLH has proposed in order to apply the Board's 1996 recommendation consistently across the Island Interconnected system. In its guidelines NLH is proposing that, in situations where transmission and terminal station equipment connect a single customer and remote generation to the grid, that the transmission and terminal equipment would be assigned common if, under any normal operating scenario, the output of the remote generation can be delivered to the 230 kV grid. (IC-215, pg. 3)

NLH further defined the guideline by putting forward a test that, if under light load conditions the combined generation on the radial line exceeds the radial load, the assets would be assigned common. This test was applied to radial systems on the Island and, in addition to the assignment of GNP assets to common, resulted in reassignment of the Doyles-Port aux Basques system from NP specifically assigned to common, and confirmed the existing assignment of the Burin Peninsula to common.

The IC argue that the generation plant on the GNP is not of benefit to the grid but accept that it could be assigned common until Granite Canal is in service. The IC submit that GNP transmission assets should be specifically assigned to NLH's rural customers. The IC do not agree that inconsistency in treatment between the generation and transmission assets is a problem (Osler, pg. 49). In final argument the IC submit that the Board should not approve the proposed changes in assignment of plant unless NLH or some other intervenor can satisfy the Board that these assets provide substantial benefit to more than two customers of NLH.

IC-180 (Rev. 1) shows the cost implications of the change in assignment of 138 kV and 66 kV transmission lines and associated terminal station equipment connecting Hawke's Bay, St. Anthony and Roddickton generation from NLH rural to common. It shows the allocated costs to NP will decrease by \$10,000 and allocated costs to the IC will increase by \$1,458,000.

The Board has insufficient evidence to accept NLH's proposed change in assignment of GNP assets to common. While the GNP generation can exceed the radial load under specific low load conditions, it is not clear that this scenario would actually provide any benefit to the Island Interconnected customers since this is not when the generation would be needed by the

system. IC-128 shows that the annual generation from GNP assets has constituted on average less than 3% of the GNP annual radial load since interconnection with the St. Anthony and Roddickton diesel units operating only for planned and forced outages.

It is clear that during the 1995 inquiry on Rural Electrical Service the Board contemplated further detailed study of the assignment of transmission assets on the GNP before making a final determination. NLH has, in this Application, accepted the Board's interim recommendation of the 1996 report on plant assignment, but has not provided sufficient evidence in the form of a detailed study to justify the assignment.

**Based on the evidence before it at this hearing the Board is not prepared to confirm the change in assignment from NLH rural to common of the generation and transmission assets on the GNP. The proposed change in the assignment of the Doyles-Port aux Basques assets from NP specifically assigned to common is also not accepted. The Board will reconsider this issue at NLH's next rate hearing. The Board will require NLH to undertake the necessary studies and analyses to support the value of the interconnection of the GNP assets to the grid, including an assessment of the impacts on system reliability and the conditions and operating scenarios under which the GNP generation would be of benefit to the operation of the Island Interconnected system. This study should also review the value of the Doyles-Port aux Basques and the Burin Peninsula systems to the grid.**

## **5. Assignment of Frequency Converters**

The rationale for installing the frequency converters at the time of development of Bay D'Espoir and the construction of the Island Interconnected grid is explained in IC-55 and IC-56. It is clear the development of the single frequency system as we know it today would not have occurred had the frequency converters not been installed. The economics and technical merits of proceeding with the Bay D'Espoir development and interconnecting the 50 and 60 cycle systems was dependent on the installation of the frequency converters. The Newfoundland and Labrador Power Commission received a grant from the Atlantic Development Board to cover the cost of purchasing and installing the frequency converters in Grand Falls and Corner Brook. Both converters are owned and maintained by NLH.

In the initial years of the Island Interconnected system the frequency converters provided the mechanism that allowed the 50 Hz and 60 Hz systems to be interconnected and function as a single system and for this reason they were treated as a common cost. It is also clear that it was intended that the Island Interconnected system was to develop as a 60 Hz system and that conversion of existing 50 Hz systems was to take place over time.

In response to IC-55 NLH states that there is very little 50 Hz load remaining on the system today and the operation of the frequency converters has little impact on the 230 kV system voltage levels and hence the operation of the interconnected system. (IC-59, pg. 1/13-15) The role of the frequency converters has been reduced to providing local voltage control for the paper mill power systems and transferring power from 50 Hz to 60 Hz for use within the individual paper mills. NLH proposes that, since these assets are of benefit to only these

industrial customers, the costs associated with the frequency converters should be specifically assigned to these customers.

The IC submit that the frequency converters should continue to be assigned as a common cost to recognize the role that industrial customers have played in the development of the interconnected system on the Island, including absorbing significant conversion costs. In final argument (pg. 41-42) the IC describe the historical basis and understandings that existed between the industrial customers and NLH in respect of the continued support that NLH would provide in respect of the frequency converters.

During the hearing Abitibi Consolidated in Grand Falls confirmed that the frequency converter at that location would be decommissioned in the spring of 2002. (NLH-16) The converter at Corner Brook is still required to convert 50 cycle generation from Deer Lake Power to 60 cycle for use in the mill. It was also suggested by the IC, and acknowledged by Mr. Budgell, that the frequency converter at Corner Brook could be used to supply emergency power to the grid. (Transcript, Nov. 8, 2001, pg. 4/40-91) Mr. Budgell was uncertain however as to the conditions under which NLH would require this power.

In final argument (pg. 71) NLH states *“The issue before the Board is whether the frequency converters should continue to be treated as common, because of the benefit to the grid they provided at the time of construction and for a period of time thereafter, when, at this particular point in time, they are of benefit only to the two industrial customers being served.”* NLH submits that based on the normal tests that are applied for assignment of plant, the frequency converters should be specifically assigned and that the historical usage is no longer relevant.

IC-134 (Rev.1) indicates that the cost impact of the change in assignment as proposed by NLH of the frequency converters from common to specifically assigned is a decrease of \$140,000 for NP and an increase of \$141,000 in costs assigned to the IC.

The Board agrees with NLH that the frequency converters should be specifically assigned to the industrial customers as they are of benefit to only those customers. The suggestion that a previous assignment of plant would not be able to be changed if the circumstances for the original assignment changed is neither acceptable nor reasonable.

**The Board accepts NLH’s proposal that the frequency converters be specifically assigned to the IC in the COS.**

## **6. Treatment of Non-Firm Load/Demand Credit**

NLH has the ability to access peaking capacity for the system from both the IC and NP. In the case of the IC, NLH has a contract with Abitibi Consolidated in Stephenville which gives it the right to interrupt its load under certain defined conditions. For this right to interrupt Abitibi Consolidated is compensated on an annual basis in the amount of approximately \$1,300,000 plus an additional payment when interruption occurs (Interruptible “B” credit). In the case of NP, NLH has the option of requesting that NP use its generating plant to supply power to the system.



Compensation to NP for this right is provided through a generation credit in the COS study. The calculation of the credit is based on NP's installed capacity, with the capacity credit calculated as shown in NP-126. The net generation credit removes the contribution from hydraulic sources and is calculated as 77.8 MW. (Supplementary Evidence, C. F. Osler, pg. D-1/24-32) The peak demands for NP in the COS study are reduced by this amount of the net generation credit.

The IC raised an issue of apparent inconsistency in approach by NLH in compensation treatment of non-firm loads for NP and the IC. Mr. Osler states overall “ *Hydro has not presented a consistent approach to addressing non-firm loads (including industrial non-firm energy, industrial Interruptible ‘B’ and NP interruptible demand via self-generation) in the COS modelling*”. (Supplementary Evidence, C. F. Osler, Sept. 12, 2001, pg.20/19-21).

In final submissions the IC summarized its position on this issue:

*“One of the problems that we have with the generation credit is that it treats NP’s generation as if it’s serving the system all of the time, and it’s not, so NP’s peak is treated as if it is generating it’s own energy all of the time and it only generates that energy on their circumstances. This shifts costs to the industrial customers for every single hour of generation and we don’t think that that’s fair...”* (Transcript, Jan. 28, 2002, pg. 34/48-55)

The IC’s position is that the compensation that NP receives for generation credit is out of proportion to what it should be. (Transcript, Jan. 28, 2002, pg. 34/71-78)

Both Mr. Brockman and Mr. Brickhill agree that NLH’s approach of treating the IC and NP differently through the generation credit and the Interruptible ‘B’ credit is fair to each party (Transcript, Dec. 4, 2001, pg. 35/40-43; Transcript, Nov. 26, 2001 pg. 37/55-66). Mr. Brockman testified that treatment of the generation credit in the same way as the Interruptible ‘B’ credit in the cost of service study would result in the vast majority of the cost being charged to NP. Mr. Brockman argued that this approach would be unfair as it amounts to NP paying NLH for its own generation. NLH also stated that, if NP’s generation capacity was not recognized, NP could opt to run its own generation in order to reduce its purchased power costs. This option may result in higher costs on the system.

The Board is not convinced that there is any inherent unfairness in the methods in which NLH treats the non-firm load and demand credit for the IC and NP. While the end result of the Interruptible ‘B’ credit and the generation credit is the same i.e. additional energy is available to the system when needed, the mechanisms are different and hence it would be expected that the method for compensation would be different.

**The Board accepts NLH’s treatment of the generation credit for NP and the Interruptible ‘B’ credit for the IC.**

## 7. Classification of Hydraulic Plant

In the 1993 generic COS report (Recommendation # 9) the Board concluded the classification of hydraulic and thermal plant in the cost of service should be done on the basis of operating parameters and recommended:

*“That portion of hydraulic plant costs in the Island Interconnected System equal to the annual system coincident load factor be classified as energy-related and the balance be classified as demand-related.”* (1993 generic COS report, pg. 38)

The IC have raised the issue of how NLH calculates the annual system coincident load factor, suggesting that NLH has made a mistake in this calculation. This argument is similar to the IC’s concern about NLH’s treatment of the NP generation credit as a reduction in NP’s coincident peak for allocating generation demand costs. The generation credit is also used to reduce NP’s coincident peak for the purposes of calculating the Island Interconnected system load factor. (IC, Final Argument, pg. 44-45/17-14)

Under cross examination by the IC, Mr. Brickhill agreed that this “*adjusted*” coincident peak reduces NP’s net system coincident peak contribution, resulting in the cost of service not capturing NP’s actual relative contribution to system peak. (Transcript, Nov. 27, 2001, pg. 20/86-93; pg. 21/1-3) The IC argue that this results in more costs being assigned to the IC. In final argument (pg. 48) the IC submitted that NLH’s use of an “*adjusted*” load factor is contrary to the methodology directed by the Board in the 1993 generic COS report for classification of hydraulic plant.

In its final submission NLH states that its treatment of NP’s capacity, which can be supplied at system peak, is consistent. If there were no demand credit given to NP, then NP would forecast its own generation at the time of peak, reducing its demand required from NLH. NLH submits that “*this reduced demand is used for both costing to NP as well as for the system load factor, since, if NP used its own generation at peak, the adjusted demand is all that would be required to be produced on Hydro’s system.*” (Transcript, Jan. 28, 2002, pg. 13/5-10)

The Board has already addressed the issue of the generation credit for NP and has accepted NLH’s treatment of both the generation credit for NP and the Interruptible “B” credit for IC. The Board does not agree with the IC that NLH’s calculation of the system load factor for the cost of service is contrary to the 1993 generic COS methodology. Adjusting NP’s coincident peak with the generation credit recognizes NP’s contribution to the system peak through their own generation sources.

**The Board accepts NLH’s treatment for classification of hydraulic plant as being in accordance with the 1993 generic COS methodology.**

## 8. Transformer Losses

NLH delivers power to all customers except Corner Brook Pulp and Paper Ltd. and its rural customers at transmission level voltages. Because metering is at a lower level, voltage losses occur from the delivery point to the metering point. In the past, these losses have been paid for by all customers as no adjustment was made to metered quantities to account for the losses.

NLH is proposing that the rates for NP and IC be based on transmission supplied to the line side terminals of customer owned or specifically assigned transformers. This proposal will result in losses associated with the customer owned or specifically assigned transformer being assigned to that particular customer or customer class. NLH submits that this treatment of the losses is fairer and more equitable and is in accordance with proper cost recovery.

IC-227 shows the customer impact of this proposed change in treatment of transformer losses. The net effect is a decrease in assigned costs to NP of \$5,276 and a net increase to the IC of \$6,600. The impacts on specific industrial customers is shown below:

Abitibi Consolidated – Stephenville	\$ 29,531
Abitibi Consolidated – Grand Falls	10,447
Corner Brook Pulp and Paper Ltd.	(41,405)
North Atlantic Refining	<u>8,027</u>
<b>Net difference</b>	<b><u>\$ 6,600</u></b>

The IC submit that the Board should reject NLH's proposal to change its treatment of transformer losses on the basis that NLH's proposal is unfair to customers and will not result in consistent treatment of transformer losses among customers. The IC propose that NLH should absorb transformer losses from 230 kV to 66 kV and that the losses from 66 kV to usage voltages should be absorbed by the customers. (IC, Final Argument, pg. 57)

The Board agrees with NLH that the proposed treatment of transformer losses is fairer and is in accordance with proper cost recovery principles.

**NLH's proposal for treatment of transformer losses is accepted.**

## 9. Labrador Interconnected System

### i) Cost of Service

Customers in the Happy Valley/Goose Bay area, Labrador City and Wabush are supplied with electrical energy from Churchill Falls. NLH has an agreement with CF(L)Co to purchase recall power and energy up to a maximum of 300 MW and 2,352 GWh annually.

On the Labrador Interconnected system, NLH owns 269 km of 138 kV transmission line and the associated terminal stations interconnecting Happy Valley/Goose Bay to Churchill Falls. NLH also owns 44 km of 46 kV sub-transmission lines in Labrador West, of which 13 km

provides an emergency interconnection between Labrador West and Fermont, Quebec. Customers in Labrador West are serviced under an arrangement with TwinCo, the owner of the transmission facilities, for wheeling electrical energy from Churchill Falls.

NLH also owns and maintains 326 km of low voltage distribution lines and 9 substations in Wabush, Labrador City, Happy Valley/Goose Bay, Northwest River, Sheshatshiu, Mud Lake and limited distribution facilities in Churchill Falls. There is also standby generation consisting of a 27 MW gas turbine and a 11.7 MW diesel plant in Happy Valley/Goose Bay to meet system emergencies. The gas turbine is remotely operated by NLH's Energy Control Centre. Approximately 8,700 customers are served on the Labrador Interconnected system.

In this hearing LC/W have objected to a single cost of service for the Labrador Interconnected system. Their position is that *"the Labrador Interconnected system consists of two discrete systems, one in the Happy Valley/Goose Bay area and the other in the Labrador West area, with respective systems having different histories, dealing in different economies and different cost bases"*. (LC/W, Final Argument, pg. 10) While acknowledging that there are common generation costs in that energy for each system is generated by CF(L)Co at Churchill Falls, LC/W submits that the system consists of separate transmission and distribution systems for the Labrador West and Happy Valley/Goose Bay areas and that there are no common costs.

It is NLH's position that all of the customers on the Labrador Interconnected system are served by the same source of power, and that normal policy is that if customers are served from the same system or grid, each should pay the same rates. (NLH, Final Argument, pg. 79)

No other intervenors took a position on this issue.

The issue of the COS methodology for the Labrador Interconnected system was examined in the 1993 hearing on the generic COS at which the Towns of Labrador City and Wabush appeared as intervenors. On Pg. 10 of the 1993 COS methodology report the Board found that:

*"The Towns have not submitted any evidence or arguments to show that costs in Labrador Interconnected System are not appropriately allocated by means of a single cost of service study. The Board is not aware of any instance where more than one embedded cost of service study has been deemed necessary for a single interconnected system and moreover considers that all customers served within the Labrador Interconnected System share common costs of generation, transmission and a variety of overheads. It therefore concludes that a single cost of service study is appropriate for that system."*

NLH was also directed to use the 1993 generic methodology at their next rate application and, as a result, NLH filed a single COS for the Labrador Interconnected system in this Application. No evidence was submitted in the present hearing to convince the Board that costs in Labrador Interconnected system are not properly allocated by the approved generic COS methodology.

**The Board has already ruled in the 1993 generic COS methodology that there be a single cost of service study for the Labrador Interconnected system and is not persuaded that there is sufficient evidence to reconsider the matter at this time.**

**ii) Generation Demand Allocator**

NLH is proposing in this Application a change in the allocator for generation demand costs on the Labrador Interconnected system.

The Board approved, as proposed by NLH at the time, the use of an Average and Excess Demand (AED) allocator for generation demand cost for Labrador Interconnected and Rural Isolated systems at the 1992 Cost of Service Hearing. NLH is now proposing a 1 CP allocator for allocation of generation demand costs to be consistent with the Board's determination in the 1993 generic COS report that a CP allocator was appropriate for the Island Interconnected system (instead of an AED allocator as proposed). Mr. Brickhill states that the seasonal peak, based largely on heating load, supports the use of a single CP allocator for the Labrador Interconnected system (Pre-filed Evidence, J. A. Brickhill, pg. 12). Additionally there is little probability of a loss of firm load on the Labrador Interconnected system. The use of a CP allocator is also beneficial for allocating the rural deficit between systems (NP-136). No other party opposed or took a position on this issue.

**The Board accepts NLH's proposal and reasons to use a 1 CP allocator for generation demand costs for the Labrador Interconnected system.**

## VIII. RURAL SYSTEMS

### 1. NLH Proposals

NLH proposes under Section 14 of the Application the following:

- (1) that the rate charged NP be increased, as of January 1, 2002 to 48.0 mills/kWh (This was revised as of Oct. 31, 2001 to 47.84 mills/kWh):
- (2) that the existing policy be continued of allowing NLH, as NP changes its rates, to automatically adjust the rates which it charges its Island Rural Interconnected Customers, its customers serviced from the L'Anse au Loup System, and its Isolated Rural Customers, other than Government departments and agencies, for the first 700 kWh per month of consumption, so that such rates are the same as the rates charged by NP to its customers;
- (3) that the existing policy be continued of allowing NLH to charge rates charged for consumption over 700 kWh per month of electricity sold to Isolated Rural Customers other than Government departments and agencies, by the average rate of change (i.e. increase or decrease) granted to NP from time to time;
- (4) that the "*preferential rates*" policies which traditionally have been made available to certain Rural Customers (fish plants and selected other organizations) be continued for the present.

In its final argument (pg. 44) NLH confirms:

*"Hydro is proposing the continuation of the existing policy that will set rates for all customers served on Hydro's Island Interconnected System to be the same as rates charged by NP to its customers. Hydro is also proposing to continue the policy that the rates for the first 700 kWh of consumption a month in the isolated rural areas be the same as that charged by NP to its customers. Hydro submits that the continuation of these long standing policies for rate design be continued and... that it is not appropriate to adjust the return on equity because of the rural subsidy arising from the implementation of these rate policies. Like any other element in the cost of service, the Board must deal with the costs associated with serving Rural Customers through the issues of revenue requirement and through rate design. Should the Board wish to change these policies, then it must direct a change in rate design on the basis that the rate policies for Rural Customers are no longer acceptable."*

### 2. Public Policy Considerations

The term "*rural customers*" encompasses NLH's isolated and interconnected rural Island customers, a total of 26,200. At the time of this application, the Island Interconnected system served 21,800 rural customers residing in 181 communities. There are also 25 isolated diesel systems serving 4,400 rural customers in some 45 communities. Sixteen isolated diesel systems are located along coastal Labrador and have an installed capacity of 20,896 kW. Nine isolated

diesel systems are on the Island with an installed capacity of 7,858 kW. All isolated rural systems are serviced by NLH generation, with two exceptions. At Mary's Harbour, in addition to diesel generation, NLH purchases energy from a small privately-owned hydro plant. On the L'Anse au Loup system, NLH purchases secondary energy from the Lac Robertson hydro plant. When this is not available, NLH uses its diesel generation at L'Anse au Loup.

In 2002 the net deficit for all of NLH's rural interconnected and isolated systems is projected at \$31,700,000. Of this amount, \$21,600,000 is attributable to the operation of the isolated systems.

The Board acknowledges that rural rates and the treatment of the rural deficit are some of the more prominent and controversial issues arising from this hearing. Decisions on these issues now and into the future will have far reaching economic and social consequences for the people of Newfoundland and Labrador. The Board cautions there are no easy solutions to these issues and likely no solutions that will satisfy all expectations. During the hearing, those subsidizing the deficit disapproved of substantial cross-subsidization, those who were to begin subsidizing the deficit were opposed to it, and subsidized rural customers wanted lower overall rates leading to greater cross-subsidization.

As set out in the historical perspective (See pg. 11 of this decision), existing rural electrification policies have evolved from specific decisions of Government and have been in place for a number of years. CA-2 contains the Board's 1995 report and its 1996 revision. These reports resulted from a referral by Government requesting the Board to investigate rural electricity services in the Province. The recommendations contained in these reports proposed significant changes to existing rural rate policies. Government did not act on these recommendations and the Board received no follow-up communication. Outside of excluding the IC from sharing in the rural deficit and the interconnection of certain isolated diesel systems, no policies influencing rural systems have changed in more than a decade.

In NP-214 NLH describes public (social) policy objectives of Government affecting NLH's actions or the nature of its services, and which are included in the 2002 test year revenue requirements. These items result from direction of NLH's shareholder and in terms of rural rates policy include:

- Customers served on the Rural Interconnected system would be charged the same rates as NP's customers.
- Life line rate block for Isolated Rural customers of 700 kWh per month;
- Preferential rates for certain rural customers;
- Payment of the rural deficit by NP and Labrador Interconnected customers.

Mr. Wells confirmed that the subsidization of the rural deficit by other customers is a matter of social policy. (Transcript, Sept. 24, 2001, pg. 31/34-39)

Before embarking upon its decision regarding rural rates, the Board must determine how established Government policies are to be treated from a regulatory perspective.

Section 4 of the *EPCA* states:

*“In carrying out its duties and exercising its powers under the Act or under the Public Utilities Act, the public utilities board shall implement the power policy declared in section 3, and in doing so shall apply tests which are consistent with generally accepted sound public utility practice.”*

In the first instance, the Board is clearly bound by Government policy contained in its governing legislation. The Board notes none of the rural rates policies outlined by NLH are specifically contained in Section 3 of the *EPCA*.

Following statutory authority, the second source of binding Government policy is the Lieutenant-Governor in Council. Section 5.1 of the *EPCA* , declares:

*“Notwithstanding section 3 and section 4 of the Act and the provisions of the Public Utilities Act, the Lieutenant-Governor in Council may direct the public utilities board with respect to the policies and procedures to be implemented by the board with respect to the determination of rate structures of public utilities under the Public Utilities Act and, without limiting the generality of the foregoing, including direction on the setting and subsidization of rural rates, the fixing of a debt-equity ratio for Hydro and the phase in, over a period of years from the date of coming into force of this section, of a rate of return determination for Hydro and the board shall implement those policies and procedures.”*

No Orders in Council affecting rural rates have been issued under this authority. The Board notes that each of the rural rates policies identified in NP-214 have resulted from Orders in Council issued prior to the granting of this authority. From a regulatory perspective, the primary issue for the Board is how to treat existing public policy established at the time when NLH was not regulated by the Board.

Ms. Greene stated NLH’s position on this issue, as follows: (Transcript, Sept. 27, 2001, pg. 5/33-47)

*“Our position is that Hydro is a fully-regulated utility under The Public Utilities Act. If direction is to be given by Government on such issues, it will be given to the Board under Section 5.1 of The Electrical Power Control Act. Part of the historical problem is that in approaching this hearing we had historic rates which may have been based on previous orders-in-council and the issue for the Board is how to deal with our historical context. Originally it was set by order-in-council which would be viewed by this Board and accepted by this Board as a means of how rates were designed for rural customers, but on a go-forward basis, if Government were to issue direction, it would have to be to the Board under Section 5.1 of The Electrical Power Control Act and that’s Hydro’s position for this hearing.”*



The Board found little other evidence to guide its decisions in this area. Intervenors, for the most part, did not articulate a firm position but generally imbued the Board with discretion regarding existing rural rates policies.

The Board concurs with the position of NLH and concludes it has discretion. If direction is to be given by Government on rural rate policies in future, it must be given to the Board under Section 5.1 of the *EPCA*. While not bound by previous Orders in Council, the Board will give regard to established social policies of Government. The Board will examine each rural rate policy on an individual basis and will assign appropriate weight to the evidence including the longevity and clarity of the policy.

### 3. Rural Deficit

The rural deficit arises from the fact that rural customers are paying rates that are lower than the costs of providing them with electrical service. In essence, NLH is experiencing losses on its rural systems. As reviewed in the history of rural electrification, Government subsidized these losses until 1989 when NLH was directed to begin recovering the rural deficit from all its customers. The only change in this policy was the amendment in the *EPCA* eliminating the IC from sharing in the rural deficit as of December 31, 1999.

The rural deficit for the 2002 test year is contained in Mr. Brickhill's revised cost of service as follows:

Rate Class	Rural Deficit	Revenue to Cost Ratio
	(\$)	(%)
Island Interconnected	8,672,891	78
Island Isolated	7,368,299	15
Labrador Isolated	14,252,129	23
L'Anse au Loup	<u>1,399,780</u>	<u>45</u>
<b>Total</b>	<b><u>\$31,693,099</u></b>	<b><u>55% (Avg.)</u></b>

(3<sup>rd</sup> Supplementary, J.A. Brickhill, Schedule 1.2, pg. 3)

In 2002, the projected deficit for all of NLH's systems is \$31,693,099 with \$21,620,428 of this amount attributable to the operation of the isolated systems. Average cost recovery on the rural system is 55% ranging from 15% on the Island isolated system to 78% on the Island interconnected system.

This Application also represents the first occasion NLH is implementing Government's 1989 directive to recover the rural deficit from all NLH customers, hence the inclusion of the Labrador Interconnected system. As evidenced below, in accordance with the 1993 generic COS methodology, 87.1% of the rural deficit will be allocated to NP's customers and 12.7% to NLH's Labrador Interconnected customers.

Rate Class	Rural Deficit Allocation	
	\$	(%)
Newfoundland Power	27,616,380	87.1
CFB Goose Bay Secondary	64,408	0.2
Labrador Interconnected	<u>4,012,311</u>	<u>12.7</u>
<b>Total</b>	<b><u>\$31,693,099</u></b>	<b><u>100.0</u></b>

As per the 1996 *EPCA* amendment, the 2002 test year for the first time reassigns the IC's share of the rural deficit following the expiry of its contribution in December 1999. CA-151 indicates the amount of the IC deficit absorbed by NLH over the past two years, i.e. 2000 (Actual) - \$4,760,666 and 2001 (Forecast) - \$5,037,347.

Witnesses are varied in their comments on the rural deficit. While most acknowledged cross-subsidization among ratepayers is a common practice in regulated industries, some commented on the relatively large subsidy contributed by ratepayers in this situation.

NLH in its final argument quotes Ms. McShane, Mr. Hall and Dr. Kalymon as supporting its position that no adjustment to return on equity is warranted and this is consistent with practices demonstrated elsewhere where social policy is incorporated into the utility's rate design. (NLH, Final Argument, pgs. 41-44) NLH continues its argument by remarking that Mr. J. T. Browne is the only witness to suggest an adjustment to NLH's rate of return to account for social policy objectives. (NLH, Final Argument, pg.40) Indeed Mr. J.T. Browne indicates, in considering a commercial rate of return for NLH, the Board may assess whether to effectively direct part of the rural deficit as a return to the owner. (Transcript, Nov. 1, 2001, pg. 35/9-23)

The Board also notes positions taken by other witnesses. Mr. Brockman stipulates that, if NLH expects to earn returns commensurate with investor-owned utilities, there must be recognition of the financial impact of these "*shareholder decisions*". (Pre-filed Evidence, L.B. Brockman, pg. 6/22-23, pg. 7/1-3) Mr. Brockman further observed there is no economically justifiable reason for having a long term goal of serving any class of customer at 20%-50% of its cost of service and recommends that NLH be required to implement a plan with the Board to begin eliminating these subsidies within the next five years. (Pre-filed Evidence, L.B. Brockman, pg. 27/1-4).

Mr. Bowman contends if the Government wants to apply its social policy through reduced electricity rates for consumers in isolated areas, then Government should pay for it. The Government provides a more efficient vehicle for collecting what amounts to a tax involving the rural rate subsidy. (Pre-filed Evidence, D. Bowman, pg. 23/4-7) Mr. Bowman concludes the energy policy review might be a good way to address this issue. (Transcript, Dec. 6, 2001, pg. 26/89-90)

Dr. Wilson recommends the Board consider developing an evidentiary record regarding the extent to which the rural deficit should be reduced and the extent to which universal service should be subsidized. He states NLH should continue to cover the rural deficit based on equity considerations that the Board deems appropriate. (Pre-filed Evidence, Dr. J.W. Wilson, pg. 8/18-20; pg. 9/1-5)

In final argument NLH proposes the continuation of the existing policy that will set rates for all customers served on NLH's Island Interconnected system to be the same as rates charged by NP to its customers. NLH is also proposing to continue the policy that the rates for the first 700 kWh of consumption a month in the Isolated rural areas be the same as that charged by NP to its customers. NLH submits that the continuation of these long standing policies for rate design be continued. Like any other element in the cost of service, the Board must deal with the costs associated with serving Rural customers through the issues of revenue requirement and through rate design. Should the Board wish to change these policies, then it must direct a change in rate design on the basis that the rate policies for Rural customers are no longer acceptable. (NLH, Final Argument, pg. 44/1-14)

NP's final argument submits that the current levels of cross-subsidization which result in NLH's Labrador Interconnected customers and NP's customers paying a forecast total of \$31,700,000 in subsidies in the test year has significant discriminatory aspects. Future direction of this issue is a matter of regulatory policy which the Board must address in considering NLH's Application. (NP, final argument, pg. B-3; B-4) In its final argument, NP also recites Mr. Brockman's and Dr. Wilson's evidence and submits that NLH be required to report annually to the Board on its progress in the management of the rural deficit. This reporting will develop an evidentiary record regarding the extent to which the deficit can and should be reduced. (NP, Final Argument, pg. F-7)

LC/W in its final argument refers to legislation, particularly the Canadian Constitution Act, legal articles and case law in concluding the proposed allocation of the rural deficit is discriminatory and inappropriate and ought to be collected as a tax on the entire electrical production base of the Province, including electrical production exported from Churchill Falls. LC/W submits that the Board would be in serious dereliction of its statutory obligations to electrical consumers if it imposed the rural rate subsidy as requested by NLH. LC/W further submits the Board should instead recommend legislation to encompass as a base all electrical production, including exports, on which to impose the burden of such a subsidy. (LC/W, Final Argument, pgs.18-22)

Neither the IC nor the CA made specific comment on the rural deficit in their final arguments.

In this hearing the Board heard little evidence directed toward this kind of substantive change proposed in the 1995 and 1996 reports. Apart from LC/W, no Intervenors advocated dramatic change in the current treatment of the rural deficit.

The Board concurs that a measured approach to addressing this important issue is in the interest of all parties. The Board agrees that an evidentiary record should be developed to

determine the extent to which electrical service in the Province should be subsidized and who should pay for any subsidy. NLH should avail of this opportunity to apprise its shareholder, Government, on the impact of these existing policies and encourage Government to appropriately evaluate its future social policy options. On the heels of these findings, the recently initiated Electricity Policy Review affords a timely opportunity for Government and NLH to examine and co-ordinate its review of historic rural rates policies in a strategic context. This approach would respect both the public policy role of Government and the regulatory role of the Board.

In compiling this evidentiary record some comments by the Board on the rural deficit may prove useful to NLH.

### 1. Magnitude of Subsidy

The 2002 total deficit for all rural customers is \$31,700,000 with \$21.6 or 68% attributable to isolated rural customers. The average subsidy, as calculated by the Board, for each isolated rural customer is \$5,232 per year (up from \$3,082 in 1995) while for interconnected customers the annual subsidy per customer is \$398 per year (down from \$475<sup>14</sup> in 1995). On the isolated systems an estimated 20 cents for each dollar spent is recovered from customers whereas on the interconnected system in excess of 70 cents on the dollar is recovered. Between 10-13% (average) of the revenue collected from an unsubsidized customer goes toward the rural deficit. Sales to customers covered by the rural deficit represent roughly 10% of NLH total electricity sales.

While cross-subsidization among ratepayers is a common practice, witnesses noted the magnitude of the subsidy is of fundamental importance. The Board acknowledges the burden the rural deficit places on subsidizing ratepayers and is concerned with the potential for increasing levels of subsidization. The Board notes that rising costs, and hence higher subsidies, may place an even greater burden on ratepayers who have no ability to control these costs but are responsible for paying them.

### 2. Future Options

The Board refers to its statutory obligations in implementing rates that are in accordance with the provincial power policy. Section 3.3 (a) (i) of the *EPCA* states “*the rates to be charged ... should be reasonable and not unjustly discriminatory*”. Depending on the level of subsidy paid by one customer to support equitable rates for another customer, rates may be judged unreasonable and discriminatory to the subsidizing customer. The alternative, commensurate with reducing this subsidy, would be to change rate design to shift additional costs to rural customers. This reallocation, it could be argued, may not provide reasonable or non-discriminatory rates to rural customers. Under these circumstances, the only effective means of implementing the provincial power policy is to transfer some or all the rural deficit to NLH or its shareholder, Government. The question of who should share in this continuing liability, either rural customers, other customers, NLH and/or Government, may become a central

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<sup>14</sup> This reduction is attributable to the GNP Interconnection and the elimination of these costs from the rural deficit.

issue for the Board in future. The Board notes that a number of witnesses supported social policies being reflected as a cost to Government with the proposed options varying from adjusting shareholder return to recovering this cost through appropriate taxation. The Board is not inclined to adjust NLH's regulated 3% ROE in this Application and is of the view that taxation is a prerogative of Government beyond the control of this Board. The Board feels strongly, however, that discussions involving NLH and Government around future funding options for the rural deficit should constitute part of the evidentiary record.

In summary, the Board has identified a number of concerns involving the rural deficit. The Board sees little in this Application by way of specific initiatives presented by NLH to address these concerns and better manage this deficit. The only notable step is the proposed 20% increase in rates to Provincial and Federal Government departments which will decrease the deficit by \$136,119 or less than half of one percent in the test year. (2<sup>nd</sup> Supplementary Evidence, P. R. Hamilton, pg. 9, Table 2) The Board finds the lack of progress by NLH in addressing and reducing the rural deficit unacceptable and concludes an evidentiary record should be developed by NLH on this important issue. The evidentiary record should contain a comprehensive assessment incorporating the magnitude of existing subsidies and comparative practices elsewhere along with an evaluation of future funding options relative to the rural deficit. The Electricity Policy Review may present a timely opportunity to address the rural deficit in a strategic context. Without this evidentiary record, the Board is not confident the rural deficit can be addressed in an appropriate and effective way at a future rate hearing.

**The Board will direct NLH to assume responsibility for the development of an evidentiary record involving the rural deficit. This record should involve appropriate consultation with Government and should address the magnitude of the rural subsidy, comparative practices elsewhere, as well as future funding options for the rural deficit. The record should also contain a concise statement of other public policy initiatives being implemented by NLH on behalf of Government and their associated costs. The Board will require NLH to file this evidentiary record at its next rate hearing.**

#### **4. Rural Rates**

Rural rates, which have been established as a matter of public policy by Government since 1975, have been set based on NP rates and have fluctuated up or down depending on respective adjustments.

The Board heard no specific evidence on changing this policy as a means of reducing the rural deficit. This policy is subject to the same evidentiary considerations described by the Board beginning on pg. 120 of this decision. Depending on the options selected, clearly a change in the existing relationship between NLH rural rates and NP rates may produce dramatic results impacting the rural deficit. The Board notes the status quo was not objected to by any Intervenor and concludes this policy should be reviewed along with others as part of the evidentiary record on the rural deficit ordered by the Board.

**The Board will order that the existing policy be continued of allowing NLH, as NP changes its rates, to automatically adjust the rates it charges its Island Rural Interconnected customers, its customers serviced from the L'Anse au Loup system and its Isolated Rural customers for the first 700 kWh per month of consumption, other than Government departments and agencies, so that rates are the same as the rates charged by NP to its customers, and to automatically change the rates charged for consumption over 700 kWh per month of electricity sold to Isolated Rural customers, other than Government departments and agencies, by the average rate of change granted to NP.**

## **5. Preferential Rates**

A variety of general service customers including the Provincial and Federal Governments benefit from preferential rates. Apart from Governments themselves, the treatment of these preferential customers has evolved over the years resulting from public policy as directed through Orders in Council.

Since the beginning of rural electrification, Provincial and Federal departments and agencies have been the recipients of preferential electrical rates in communities served by diesel generation. For the most part, Government owned and funded these first diesel installations and in return received preferential rates. These preferential rates for government departments and agencies continue to the present day.

In 1996 the Board recommended that *“a new rate be designed for federal and provincial departments and agencies, and these rates, phased in over five years, should recover full costs.”* (CA-2; Report on Rural Electrical Service, July 1996, pg. 32). *“Government departments and agencies”* includes provincial and federal government departments, agencies, boards, commissions and crown corporations and includes schools and hospitals.

In this Application, NLH has accepted this recommendation. In order to move to full cost recovery for government departments and agencies, rates would have to increase by approximately 280% (Pre-filed Evidence, D. W. Osmond, pg. 12/11). NLH has proposed that these customers receive an overall initial 20% increase in rates, including the general rate increase, effective January 1, 2002. As part of its next rate application, NLH further proposes it will submit a rate plan outlining rate alterations over a five-year period to achieve full cost recovery. (NLH, Final Argument, pg. 76/28-31) A 20% increase in rates for government departments and agencies on the rural system will result in an additional \$136,119 in revenue (2<sup>nd</sup> Supplementary Evidence, P. R. Hamilton, pg. 9, Table 2). Once the phase in period is completed, NLH will receive approximately \$2,000,000 in additional revenue. (Transcript, Sept. 25, 2001, pg. 24/42-44)

The only issue raised by the parties with respect to the phase out of government preferential rates on rural systems was that NLH was not moving quickly enough. In its final argument, NP proposed that the Board could expedite cost recovery through annual adjustments to government rates instead of waiting until the next rate application from NLH to implement a five year rate plan. NP continues, the Board should order that the rural deficit be reduced by \$2 million for ratemaking purposes to reflect full cost recovery from NLH's government customers.

(NP, Final Argument, pg. F-7) The CA proposes all preferential rates provided to the Federal Government should be discontinued immediately while those affecting the Provincial Government, schools and churches should be phased out with notice. (CA, Final Argument, pg. 43)

In 1975 Government introduced preferential rates for fish plants connected to isolated diesel systems. Preferential rates were further extended in 1978 to include churches, schools and other community based facilities. Fish plants with demands exceeding 30 kW have been given access to electrical service from diesel plants at interconnected general service rates. These rates are substantially lower than those charged to customers paying the general service diesel rate (Rate Category GS 2.5) in the same community. Churches, schools and community halls have also been given preferential rates (Domestic Diesel rate), and a special rate is in place for the Burgeo School and Library (Rate category Special 1.3).

In the 1996 Report on Rural Electrical Service, the Board agreed with NLH that preferential rates should be phased out over a five-year period. (CA-2); Report...concerning Rural Electrical Service, pg. 32) In this Application, NLH has not proposed starting the phase out of these preferential rates to fish plants, churches, schools and community halls because the magnitude of rate increases would be significant. Once again, as part of its next rate application, NLH indicates it will submit a rate plan outlining alterations in rates over a maximum of five years that will address the recommendations in the 1996 Report, including the phase out of preferential rates. (NP-150) NP-152 indicates that NLH would receive an additional \$600,000 in revenue once the phase out of non-governmental preferential rates is completed. As a result of the current Application, these customers would receive an increase of approximately 3.7%, which is the estimated overall increase expected for NP as a result of this Application (IC-121). NP submits that the Board require NLH to file a proposal on the phase out of preferential rates. (NP, Final Argument, pg. F-6) No other Intervenor commented on preferential rates to non-government customers.

In final argument NLH explains that, because of the increase proposed for customers, it did not recommend an additional increase (except for Government departments and agencies) to reflect either the phase out of the preferential rates or the full implementation of cost recovery for Government departments and agencies. NLH submits this issue is now before the Board and, while it believes this is a reasonable approach in the current context, there is more than one reasonable approach. NLH leaves this matter for the Board's consideration and decision. (NLH, Final Argument, pg. 77/8-16)

No parties, including NLH, supported the premise of ratepayers subsidizing taxpayers in paying for electrical service used by the Federal and Provincial Governments. Mr. Wells remarked in his testimony there is no apparent reason why Government rates, Federal or Provincial, should be subsidized. (Transcript, Sept. 25, 2001, pg. 8/81-84) The Board notes preferential government rates are unique to this Province. Other jurisdictions provide either full cost recovery on Government rates or charge Government an additional surtax in order to reduce the deficit arising from serving rural communities. (e.g. NWT, Yukon, Manitoba, Saskatchewan and Ontario) (Transcript, Nov. 19, 2001, pg. 39/10-21)

The Board acknowledges NLH's proposals but feels the five-year timeframe to eliminate preferential rates to Government will serve to perpetuate this historical inequity for ratepayers. The Board believes that coincident with the application of the rates approved by this decision that NLH should move to implement rates for both the Federal and Provincial Government reflecting full cost recovery on rural systems. The Board is sensitive to the impact this decision may have on hospitals and other organizations not directly funded by either the Federal or Provincial Governments. Such institutions and public organizations will be treated similar to schools and continue to benefit from preferential rates for the time being.

In the longer term, however, the Board finds no regulatory foundation for preferential rates. As outlined when considering the rural deficit, it can be argued cross-subsidization to effect equal rates among similar classes of customers is an accepted regulatory principle depending on the magnitude of the subsidy. No similar regulatory argument can be made for offering one customer a substantially better rate than another comparable customer for the identical service. Some customers who are entitled to preferential rates pay on average an estimated 12% of the cost of their service and pay roughly one-half the rate of general service customers on the same system. Preferential rates are inequitable to the non-recipient consumer and based on the Board's statutory obligations are deemed discriminatory. In making the decision to eliminate preferential rates, the Board is cognizant of the regulatory principle where the end result of the new rate on fish plants, institutional and community based facilities will be unfair and unreasonable unless implemented over time. For this reason the Board concurs with NLH's proposal regarding the presentation of a plan at its next rate application for phasing out over a five-year period the remaining categories of preferential rates.

**The Board finds preferential rates are discriminatory and will order that NLH increase rates to the Federal and Provincial Governments effective with the implementation of other rate changes arising from this decision to recover the full costs of providing this service in rural areas. Preferential rates will continue to apply to hospitals, fish plants, churches, schools, community halls, municipal buildings and like facilities currently benefiting from preferential rates. NLH's proposal is accepted to present to the Board at its next rate application a plan to phase out preferential rural rates.**

## **6. Lifeline Block**

For isolated rural customers, a block rate structure exists where rates rise as increasing blocks of electricity are used. The purpose of the first lower priced block or "*lifeline*" block is to provide basic electrical requirements such as lighting, cooking, furnace and water pump operation.

The concept of a lifeline block was established by government and has been in place since 1975 when the block was set at 500 kWh per month. At the same time, Government also established a policy that NLH's rural customers are charged the same rate as NP's domestic customers, currently 6.579 cents/kWh for the lifeline block, significantly lower than the cost of service. This block was increased to 600 kWh per month in 1987 and to the current level of 700 kWh per month in 1989. The second block is for usage between 701 kWh and 1,000 kWh per month, with a rate of 9.606 cents per kWh. For usage exceeding 1,000 kWh per month the



current rate is 13.022 cents per kWh (called the “run-off rate”). Rural customers also pay a basic monthly customer charge of \$16.71, which is the same as that charged by NP to all other domestic customers.

General service customers also have access to a lifeline block as ordered by Government in 1989. The result is that general service customers have access to energy at a rate of 8.624 cents per kWh for the first 700 kWh and 19.540 cents per kWh for energy use beyond 700 kWh. The basic monthly charge for general service customers on rural systems is \$19.02.

The Board dealt with the concept of the lifeline block during the Rural Electrical Service inquiry in 1995. At that time the Board did not recommend any change in the lifeline block of 700 kWh per month for rural domestic customers (CA-2; 1996 report, pg. 31). The Board did recommend, however, that the special general service lifeline rate be eliminated in order to achieve greater cost recovery on isolated systems from general service customers.

In response to CA-58 (revised) NLH addressed its position on the Board’s 1996 recommendations dealing with the lifeline block, stating that it concurs with the recommendation to eliminate the special general service rate for the first 700 kWh per month and that it will address this issue at its next rate application as part of its five year rate implementation plan. NLH also agrees with the Board’s recommendation that the lifeline block for domestic customers remain unchanged at 700 kWh per month.

The CA raised the issue of the adequacy of the lifeline block:

*“The Consumer Advocate believes that 700 kWh per month falls short of typical consumption levels of Domestic consumers on Isolated Systems. This causes significant financial hardship for domestic customers in Isolated Systems who are least able to afford it. In this regard, the Consumer Advocate recommends that the Board address this issue now but direct Hydro to undertake a study to determine an appropriate lifeline block size, and report back on the results at the next rate hearing scheduled for 2003.”* (CA, Final Argument, pg. 51)

As an interim measure, it was proposed by the CA that the lifeline block be increased to at least 900 kWh. (CA, Final Argument, pg. 53)

NLH’s position is that the lifeline block should not be changed and that increasing the lifeline block would increase the amount of the subsidy associated with serving rural customers. No evidence was brought forward which would quantify the impact on the rural deficit of increasing the lifeline block to 900 kWh per month. (Transcript, Jan. 28, 2002, pg. 14/36-50)

The Board notes the existing lifeline block of 700 kWh has been in place since 1989. At the public participation days in Labrador, several presenters stated that the existing lifeline block was inadequate and electrical requirements have changed since that time. Hot water boilers were noted as particularly high users of electricity. The Board has a statutory obligation to ensure that all consumers should have access to sufficient electricity to meet their basic needs at equitable rates. The Board cautions that the “lifeline block” needs to be established at a precise level to

ensure equitable access while minimizing the rural deficit. The Board was presented with insufficient evidence to make this determination. The Board believes the “*lifeline block*” is a critical component of an effective rural rates policy and concurs with the CA that a review into the appropriateness of the “*lifeline block*” is timely.

The Board points to its decision contained on pg. 133, requiring NLH to take steps to introduce at its next rate application a demand energy rate structure for general service customers on isolated systems. Bearing this in mind, a plan should be devised to coordinate the implementation of this initiative with the elimination of the 700 kWh lifeline block for these same general service customers. This latter finding, as recommended in the Board’s 1996 report was agreed to by NLH, who are now proposing to address the issue at its next rate application. Coordinated implementation of these measures will provide equitable and comprehensive rate setting for this class of general service customers.

**The Board will approve the existing “*lifeline block*” of 700 kWh for both domestic and general service customers. NLH will be required to undertake a review of the existing “*lifeline block*” for domestic customers to assess its adequacy and prior to December 31<sup>st</sup>, 2002 file a report with the Board.**

**The Board accepts NLH’s proposal to address at its next rate application the elimination of the “*lifeline block*” for general service customers on isolated systems. This proposal is to be appropriately coordinated with the Board’s decision to implement a demand energy rate structure for this same class of customers.**

## **7. Demand Charge for General Service Customers on Isolated Systems**

In its July 1996 report “*Referral by the Lieutenant-Governor in Council Concerning Rural Electrical Service*” the Board recommended “*that Hydro be directed to provide a cost benefit analysis of a rate structure for general service customers which provides for a demand charge. The energy and demand charge in such a rate structure should recover long run marginal costs*”. (pg. 32)

NLH filed a report “*Cost Benefit Analysis of Implementing Demand Charges in the General Service Rate Structure in Isolated Areas*” in NP-184 (b). This report concludes that the cost of implementing demand charges in general service rates in isolated areas is not significant. Incremental costs relate primarily to costs of demand meters versus energy only meters, additional billing costs and additional costs of enquiries from customers. The benefits of such a rate structure are related to:

- sound rate design principles where rates reflect the costs associated with the level of service provided;
- consistency with Interconnected Systems rate structures; and
- improved customer load factors.

The report recommended that NLH proceed with implementing demand charges in the general service rates charged in isolated areas, with the actual timing of the implementation reflecting the other rate issues to be addressed in isolated areas. The report also recommended that demand meters be installed on all appropriate customers in preparation for implementation of this rate structure.

In cross-examination by NP, Mr. Hamilton advised that NLH has been proceeding with implementing demand meters on general service customers in isolated systems but was unable to confirm whether all necessary demand meters have been installed. Mr. Hamilton also confirmed that NLH proposes to address this rate structure option at their next rate hearing. (Transcript, Nov. 28, 2001, pg. 26/3-49)

The Board agrees that implementation of a demand charge for general service customers on isolated systems should proceed. It is recognized that this may result in lower load factor customers receiving increases in rates while customers with higher load factors will receive decreases, assuming the rate is designed to recover the same revenue. However, this rate structure will better reflect the respective costs of serving specific general service customers and provide those customers the opportunity to reduce their bills through managing the level of demand they place on the system.

**NLH will be required to take the necessary steps required to prepare for implementation of a demand energy rate structure for general service customers on isolated systems and to file at its next rate application a proposal for such a rate structure. The implementation of this decision is to be coordinated with the elimination of the “lifeline block” for general service customers to be addressed by NLH at its next rate application.**

## **8. Phase-out of IC Contribution to Rural Subsidy**

Before the enactment of the amended *EPCA* in 1996, all customers of NLH were required to share in subsidizing the rural deficit. The 1996 amendments relieved the IC of responsibility for sharing in subsidizing the rural deficit. Subsection 3(a) (iv) of the *EPCA* declares that:

- After December 31, 1999 the rates charged to the IC should not include any amount for the rural deficit; and
- The portion of the subsidy paid by the IC should be gradually reduced over the period January 1, 1996 to December 31, 1999.

While NLH did apply to the Board in November 1999 to reduce the IC rates to eliminate their share of the rural deficit, it did not apply to the Board for a gradual reduction of rates to phase out the subsidy. The rates remained constant throughout the period 1996 to 1999. In response to the November application of NLH, the Board issued its first Order in P.U. 23 (1999-2000) dated December 14, 1999 whereby it approved interim rates for the IC excluding any contribution to the rural deficit. This Order effected a single rate adjustment, as of January 1, 2000.

The IC argue that subsection 3(a) (iv) of the *EPCA* required that the subsidy be reduced in 1996 and gradually decreased each year thereafter until total elimination was achieved at the end of 1999. The IC suggest that NLH breached the *EPCA* by failing to gradually reduce the rates during this period. They estimate, based on an annual reduction of twenty percent, that this failure resulted in NLH overcharging the IC an estimated \$9,140,317 for which they are now requesting a refund (See IC-8)

NLH argues that while the *EPCA* states that the IC portion of the rural subsidy was to be “*gradually reduced*”, it did not require that the subsidy be reduced by equal annual amounts as suggested by the IC. NLH explains, in IC-9, that it did not make application to gradually reduce the rates as government had advised that it was reconsidering the policy of eliminating the IC contribution to the rural subsidy. NLH submitted in evidence, a copy of a letter from the Minister of Mines and Energy which on October 14, 1999 directed NLH to proceed with the application to reduce rates as government “*has considered alternates respecting the implementation of Section 3 (a) (iv) of the Electrical Power Control Act, 1994*”. NLH points to subsection 17(5) of the *Hydro Corporation Act*, which NLH interprets as saying “*that no ruling by the Board in this hearing is to have a retroactive effect on the rates including providing for refunds or credits*”. (Transcript, Jan. 28, 2002, pg.13/2-9).

No other parties addressed this issue, either during the presentation of evidence or in final argument.

The Board agrees that, while the term “*gradually reduced*” in Section 3(a) (iv) of the *EPCA* may not require equal annual adjustments as suggested by the IC, it does imply more than the elimination of the subsidy in one step. NLH did not apply to the Board at any time to gradually reduce the subsidy paid by the IC. Instead it applied in 1999 to totally eliminate the IC portion of the subsidy. It is the Board’s view that this has contributed unnecessarily to the complexity of this hearing and that the issue should have been addressed several years ago. While NLH has offered the explanation that government was considering changing the provision at the time, the Board is concerned that such a significant issue was left to the informal direction of government, when the power policy of the Province was clearly set out in the legislation.

The Board notes that under the provisions of the *Act* the IC also could have brought this issue to the Board at any time after the enactment of the *EPCA* in 1996. The IC could have made a complaint or could have asked the Board to exercise its discretion to investigate the rates. Instead the IC took no steps to ensure that the subsidy was gradually reduced, and no evidence was submitted to explain this lack of action. While the Board may wonder whether the IC knew that the government was reconsidering the rural subsidy allocation, there is no evidence to form any conclusion on that point. The failure of the IC to raise this issue with the Board at the time has led them to seek at this hearing a retroactive rate adjustment of \$9,140,317.

This request for a retroactive rate adjustment runs contrary to one of the basic principles of rate regulation and generally accepted sound public utility practice, whereby rates are set prospectively. The *EPCA* codifies this principle in subsection 3(a) (ii), whereby it says that the rates set by the Board are to be based upon forecast costs. In addition, subsection 17(5) of the *Hydro Corporation Act* prohibits the Board from retroactively amending the rates. While the

Board agrees with the IC that the portion of the rural deficit subsidized by the IC was not gradually reduced, the Board will not now retroactively adjust the rates for the period 1996 to 1999. The proposed adjustment would be contrary to sound regulatory principles as well as the relevant legislation, especially in light of the failure of the IC to pursue this issue previously.

**The Board will not direct NLH to provide a refund to reflect a gradual reduction of the IC portion of the rural subsidy over the period 1996-1999.**

## **IX. RATE ISSUES/RATE DESIGN**

### **1. Rate Approvals Requested by NLH**

As part of its Application NLH requested, pursuant to Section 70 of the *Act*, approval of rates for NP and the IC, as well as rates for street and area lighting in Rural Isolated and Rural Interconnected systems, and rates for Labrador Interconnected system customers.

During the hearing revisions to several of these proposed rates were filed as a result of updated COS studies. The Board notes that NLH will have to file revised rate schedules for approval incorporating the decisions of the Board, especially those relating to the COS and the test year revenue requirement. Although the Board is not in a position at this time to approve final rates as proposed by NLH there are several rate issues that need to be addressed. These include:

- Labrador Interconnected system proposed Rate Structure and Secondary Energy Rate
- Wabush Surplus
- Industrial Contracts
- Wheeling Rate
- Rate Design Issues

These issues are dealt with below. The Board also gives direction to NLH on **page ?** of this decision on the steps it will have to take in advance of filing rates for 2002 to be approved by the Board.

### **2. Labrador Interconnected System – Rate Structure**

Currently there are three sets of rates, rules and regulations for the Labrador Interconnected system that have evolved over time as NLH acquired the systems:

1. Rates in Happy Valley-Goose Bay were frozen in 1981 at the Island Interconnected rates which remain in effect today. The same Rates, Rules and Regulations as on the Island Interconnected system apply in Happy Valley-Goose Bay.
2. In 1985 NLH acquired from Wabush Mines the distribution assets associated with serving the Town of Wabush and the Board subsequently recommended the Rates, Rules and Regulations that would be applied.
3. In 1992 NLH acquired from the Iron Ore Company of Canada the distribution assets associated with serving the Town of Labrador City and the Board subsequently recommended the Rates, Rules and Regulations that would be applied.

At the present time average rates are approximately 2.0¢/kWh in Wabush, 1.5¢/kWh in Labrador City and 3.8¢/kWh in the Happy Valley-Goose Bay area. (Pre-filed Evidence, D. W. Osmond, pg. 13)

**i) NLH's Proposed Rate Structure**

In this Application NLH is proposing to simplify rate classes and structures for the Labrador Interconnected system and also to implement uniform interconnected rates for customers in Happy Valley-Goose Bay, Labrador City and Wabush. NLH is proposing to consolidate the 24 different rate classes presently in effect in the Labrador Interconnected system into 6 classes and is also proposing one set of Rules and Regulations that will apply to all of NLH's rural customers. The new rate classes are the same as those for the Island Interconnected system with rates reflecting the costs of the Labrador Interconnected system. Customers on the Labrador Interconnected system will be placed into the appropriate rate class based on their load characteristics. NLH notes that it will not receive any additional revenue from the consolidation of these rate classes but customers will receive increases or decreases depending on their load characteristics. (Pre-filed Evidence, D. W. Osmond, pg. 14).

NLH is also proposing that, effective January 1, 2002 customers in Labrador City and Wabush will pay the same rates. On average, domestic customers in Labrador West will have an increase of approximately 17.1%, with 95% of these customers seeing increases of less than \$150 annually. Rates for general service customers in Labrador West are proposed to decrease on average by 5.4% with certain small general service customers having relatively small increases. However most customers in the general service rate class will see significant decreases. (Pre-filed Evidence, D. W. Osmond, pg. 15)

It is also noted that NLH sees this proposal as a first step in implementing a Labrador Interconnected rate structure. A rate plan outlining alterations in rates over a maximum period of five years will be filed as part of their next rate application. In the long term NLH is proposing the following cost recovery targets for the Labrador Interconnected system, which are the same as those accepted by the Board for NP (Pre-filed Evidence, P. R. Hamilton, pg. 5):

Domestic	95%
General Service	105-115%
Street Lighting	100%

The LC/W have objected to NLH's proposal for uniform interconnected rates in Labrador. They argue that NLH has not presented sufficient evidence to show that a rate increase in Labrador West is warranted and that rates in Labrador West should not be altered at this time.

NLH submits in final argument (pg. 79) that: *"its proposal to have one Labrador Interconnected System is consistent with the recommendation of the Board in its 1993 report and that it is consistent with normal utility practice that customers served from the same system (where there are common costs) pay the same rates."* NLH has also proposed a phasing in of the rate changes because of the impacts on certain customers on the system.

The Board agrees with NLH that its proposed approach to rate changes in the Labrador Interconnected system is consistent with the Board's recommendation in the 1993 generic COS report, which was accepted by Government under previous legislation, and which NLH was directed to use in this Application.

**NLH's proposal to implement the Island Interconnected rate structure (six classes) for the Labrador Interconnected system will be approved.**

**NLH's proposal to phase in a cost based rate system for the Labrador Interconnected system as of the implementation of rates that arise from this decision will be approved. NLH will be required to file a five year plan outlining further alterations in rates on the Labrador Interconnected system, with the cost recovery targets as identified in this Application to be incorporated as part of NLH's next rate application.**

The Board notes that its decision to deny NLH's proposed change in assignment of GNP assets in the COS will result in additional costs being assigned to the Labrador Interconnected system (See pg. 110 of this decision). The Board estimates that maintaining the assignment of GNP plant to the Rural Interconnected class will result in additional costs of over \$1,000,000 being assigned to the Labrador Interconnected system due to the allocation of the rural deficit. These additional costs will have to be recovered through rates from customers on that system.

In this Application NLH recognized that the restructuring of the existing rates and rate classes in Labrador will result in a wide range of increases and decreases in rates due to rate structure changes and differences in customer usage patterns. NLH implemented the following guidelines for its first step in its plan to move to the cost recovery levels indicated earlier: (Pre-filed Evidence, P. R. Hamilton, pg. 7/10-12)

1. *Move all customers to the relevant standard rate classes;*
2. *No rate class (based on the standard rate class categories) should receive an increase of more than 20%;*
3. *No Domestic or small General Service customer should receive an increase of more than \$20 per month;*
4. *Larger General Service customers should receive increases of no more than 20% unless circumstances are unique; and*
5. *Street and Area Lighting Rates should move toward specific costs of providing the service.*

**The Board recognizes NLH's efforts in this Application to minimize rate increases to its customers on the Labrador Interconnected system to a level that, in its view, would not cause "rate shock" by applying these guidelines in its rate design. The Board sees these guidelines as reasonable and encourages NLH to adhere to these guidelines as it redesigns its rates to be submitted to the Board as a result of this decision. If application of the guidelines, as they are, prevent the design of rates that will recover costs, the Board will support some adjustment in the parameters if required. The Board reiterates its support of keeping the level of rate increases on the Labrador Interconnected system as low as possible as NLH moves to a uniform rate structure.**



**ii) CFB Goose Bay (5 Wing) Secondary Power Rate**

NLH has proposed a secondary energy rate to apply to customers serviced from the Labrador Interconnected System that can avail of fuel switching and can purchase a minimum of 1 MW load, such as an electric boiler, when it is available. CFB Goose Bay (5 Wing) currently has a contract with NLH for secondary service for their electric boiler plant. NLH has proposed a rate for this service based on the greater of 90% of the value of the customer's avoided fuel cost (as calculated in Clause A) or NLH's opportunity cost based on revenues it could receive by selling the power elsewhere. (Clause B) For the 2002 test year the revenue from this secondary energy rate is forecast to be \$3,980,020 (2<sup>nd</sup> Supplementary Evidence, P. R. Hamilton, pg. 9) with a net revenue of approximately \$3,750,754 (2<sup>nd</sup> Supplementary Evidence, J. A Brickhill, JAB-1, Rev. 2, pg. 3 of 94).

**Submission of CFB Goose Bay (5 Wing)**

In his presentation to the Board Colonel McCabe, the Commander of CFB Goose Bay (5 Wing), stated that the proposed Clause B in the secondary rate structure leaves the Base liable for increases in cost for energy beyond those in the current arrangement. He also expressed concern that this Clause will limit the amount of secondary energy that is offered to CFB Goose Bay (5 Wing), causing them to have to burn oil to generate steam heat. (Transcript, Oct. 19, 2001, pg. 5/82-90) There was also some disagreement between CFB Goose Bay (5 Wing) and NLH as to whether this provision (Clause B) existed in the prior arrangement between the parties. [Submission of CFB Goose Bay (5 Wing), pg. 3-4]

In their submission (pg. 7-8) CFB Goose Bay (5 Wing) suggested that the rates charge for secondary energy were unreasonable, unjustly discriminatory and without rational connection to the cost. Concern was expressed both in relation to Clause B and the high revenue cost coverage ratio for the secondary energy which, according to CFB Goose Bay (5 Wing), suggests that they are subsidizing other customers through their secondary energy purchases, and to a lesser extent, their firm power purchases

In final argument (pg. 81) NLH states that the evidence shows that the rate for secondary service is based on 90% of the customers avoided fuel cost with NLH's opportunity cost being a floor.

The Board does not agree with the submission of CFB Goose Bay (5 Wing) that the rate proposed by NLH for secondary energy is unreasonable and unjustly discriminatory. The rate is not a cost of service based rate but rather a market based rate for non-firm sales. The energy is only provided by NLH when CFB Goose Bay (5 Wing) wants it and when NLH has it available. The cost of service for the Labrador Interconnected system does not assign any firm load requirements to CFB Goose Bay for this energy (since it is non-firm) and so there is no demand cost assigned to them. NLH's proposal to price the energy on the basis of the greater of 90% of the customers avoided fuel cost or NLH's opportunity cost is, in the Board's opinion, fair and practical to both CFB Goose Bay (5 Wing) and NLH. It is also not correct to compare this non-firm rate with the industrial non-firm rate on the Island Interconnected system. The Island Interconnected non-firm rate includes both a demand charge and an energy charge, meaning that

those customers are assigned a portion of the costs on the Island Interconnected system in the COS in the non-firm rate. The secondary rate on the Labrador Interconnected system is an energy only rate and CFB Goose Bay (5 Wing) is not assigned any portion of other costs on the Labrador Interconnected system. The Board has no basis on which to calculate an alternate rate for CFB Goose Bay (5 Wing) and feels NLH's proposal is fair.

**The secondary energy rate as proposed by NLH for customers serviced from the Labrador Interconnected system will be approved.**

#### **Allocation of Revenue from Secondary Rate**

In its Application NLH has proposed applying the net revenue of \$3,750,754 from secondary energy sales to CFB Goose Bay (5 Wing) against the overall revenue requirement for the Labrador Interconnected system to reduce firm service rates. Both Mr. Osler and Dr. Wilson suggested that the Board has discretion in how it deals with this surplus and that one option would be to apply the surplus against the rural subsidy to reduce the overall level of the deficit. In final argument (pg. F-6) NP also asked that the excess revenue from CFB Goose Bay (5 Wing) be applied to reduce the rural deficit. Mr. Hamilton, on behalf of NLH, acknowledged that there is no rate design principle that requires that this excess of revenue over costs be applied against the Labrador Interconnected system. He states that NLH's reasoning to apply it in the manner proposed is to keep the revenue from the Island portion on the Island and the Labrador portion in Labrador. (Transcript Nov. 29, 2001, pg. 35/92-94)

The Board notes that the excess revenues from GFB Goose Bay (5 Wing) are not cost based and are separate from the cost of service revenue requirements used to set rates for the Labrador Interconnected system. There is also no guarantee that the revenues will continue into the long term, meaning that if the excess revenue is applied against the revenue requirement, rates would have to change if the secondary energy sales were to change or end. It does seem fairer to all consumers in the Province that the surplus from secondary sales to CFB Goose Bay (5 Wing) be applied against the rural deficit which both NP and Labrador Interconnected customers will pay for as part of the implementation of this decision.

As noted previously in this section the Board is cognizant of the impact of its decision on the Labrador Interconnected system to not confirm the proposed change in GNP plant assignment to common as discussed on pg. 113 of this decision pending further study by NLH. If the Board were to also order that the excess revenue from secondary energy sales to CFB Goose Bay (5 Wing) be applied to reduce the rural deficit and not used to reduce the revenue requirement of the Labrador Interconnected system, the costs to be recovered through rates on this system would increase significantly.

**The Board finds that the credit from secondary energy sales to CFB Goose Bay (5 Wing) would be more appropriately applied against the rural deficit before allocation to NP and Labrador Interconnected customers. However, because of the magnitude of this adjustment relative to the total revenue requirement on the Labrador Interconnected, together with the impact of other decisions of the Board, the Board believes that implementation of this decision would introduce rate shock for the Labrador**

**Interconnected customers. For the 2002 test year, the credit should be applied to the Labrador Interconnected system as proposed by NLH. The Board will require NLH to include, as part of its five year rate plan to be submitted at the next rate hearing, a plan which phases in to the Labrador Interconnected customers, the impact of applying the credit for secondary energy sales to the rural deficit.**

**iii) Wabush Surplus**

NLH has applied to the Board for an order determining the disposition of the Wabush surplus. The total accumulated surplus from 1987 to the end of 2001 is \$2,922,755, which includes an interest component of \$916,370. (Pre-filed Evidence, D. W. Osmond, Schedule 1)

The issue of the Wabush surplus arose as a result of a number of decisions and recommendations of the Board and subsequent Appeal Court decisions following the transfer of the electrical distribution system in Wabush from Wabush Mines to the PDD in 1985. In an interim report to Government dated November 18, 1985 the Board recommended approval of rates for Wabush customers as proposed by the NLH as of January 1, 1989 and also stated that *“If, in future years, PDD achieves a surplus in Wabush, the surplus shall be refunded to the customers.”* (pg. 6)

In 1991 the *Electrical Power Control (Amendment) Act*, SN, 1991, c-48 removed the exemption given to Labrador Interconnected customers with respect to their share of the funding of the rural deficit. This change also applied to customers in Wabush. In late 1991 NLH referred to the Board an application for rate and classification changes to the Labrador Interconnected grid customers. Subsequent to the filing, the referral was amended to delete the increases requested with respect to electricity rates on the Labrador Interconnected system, including Wabush. NLH has not filed a rate referral or application on Labrador Interconnected rates since that time, which means that these customers have not been sharing in the funding of the rural deficit (as required by the EPCA) and also that the issue of the Wabush surplus was still outstanding.

NLH proposed two options for dealing with the Wabush surplus to the Board in correspondence dated February 26, 1993 (Pre-Filed Evidence, D. W. Osmond, Schedule II). The first option was to refund the surpluses for 1989-1992 in 1993 based on each customer's share of 1992 revenue. The second option proposed was to defer the matter until such time as there is a rate referral to review electricity rates for customers served from the Labrador Interconnected grid. In proposing this option NLH recognized that the 1993 COS methodology allocates more costs to Labrador interconnected customers than before and that the existing surplus could be used to offset increases in rates for these customers at the next rate hearing. In response the Board agreed with the second option, which was to defer the matter until the next rate referral, and stated *“At that time the existing surplus would be used to offset increases in rates for the customers in Wabush.”* (Pre-Filed Evidence, D. W. Osmond, Schedule III)

NLH has continued to record the surpluses for Wabush based solely on the costs recorded in the accounting records, which was the accepted method for recording the Wabush COS prior to 1992. This cost does not include any overhead cost allocation, margin allocation, or rural deficit allocation. (NP-134) In this Application NLH is proposing to refund the surplus of \$2,922,755, accumulated and calculated as described above for the years 1989-2001, to Wabush customers in 2002, based on each customer's proportionate share of the 2001 revenues. (Pre-filed Evidence, D. W. Osmond, pg. 17)

The only major issue raised by the intervenors on the Wabush surplus was with respect to the fairness of refunding the balance to customers based on their share of 2001 revenues. The CA questioned whether this was fair to the customers who have left the system since 1989. (CA-62) In response NLH agreed that, to be theoretically precise, the refund should be made to all customers who have been billed on the Wabush system since 1989. NLH submits that it would be impossible to track those customers who have left the system. It would also be a significant administrative exercise because of the lack of electronic records.

In dealing with this issue the Board is influenced by the direction given to NLH in its letter of March 19, 1993, which stated that at the next rate referral "*the existing surplus would be used to offset increases to rates for customers in Wabush*". It is clear to the Board that NLH has followed that direction in this Application by proposing to refund the surplus to the Wabush customers in 2002. This would have the effect of offsetting rate increases that would be implemented in 2002. The Board is also of the view, however, that at that time the Board would not have contemplated such a long period of time elapsing until the issue was dealt with.

Changes in circumstances and issues that have arisen as a result of the long delay in NLH coming before the Board to deal with this issue would require that the Board explore whether there are other alternatives for the disposition of the Wabush surplus. The Board notes that it appears that NLH had already made representations to the people in Wabush that they would be getting a refund prior to the commencement of the hearing of this application. Even though the Board does not feel it is bound by the direction in its 1993 letter it does feel that the fairest and most equitable way to dispose of the surplus is to refund it back to the customers in Wabush as proposed by NLH.

The Board does appreciate the issue raised by the CA regarding the perceived unfairness of providing refunds to current customers for surpluses that have arisen from operations dating back to 1989. However the Board accepts NLH's explanation and reason on why this is not possible and will not require NLH to trace customers that have since left the system.

**The Board will approve the refund of the Wabush surplus of \$2,922,755 as proposed by NLH.**

### 3. Industrial Contracts

#### i) General

NLH filed with the Application copies of the contracts for each of the Industrial Customers, Corner Brook Pulp and Paper Limited, Abitibi Consolidated Company of Canada, Grand Falls and Stephenville Divisions, and North Atlantic Refining Limited. Final copies of the contracts were filed on January 9, 2002 incorporating changes. NLH is requesting the Board approve these contracts, pursuant to Section 71 of the Act. Prior to this Application the rates and contracts for the IC were not regulated by the Board and this is the first time that the Board will be dealing with this issue.

Section 71 of the *Act* states:

*“A public utility shall submit for the approval of the board the rules and regulations which relate to its service, and amendments to them, and upon approval by the board they are the lawful rules and regulations of the public utility until altered or modified by order of the board.”*

In final argument (pg. 126) the IC agree that Section 71 gives the Board the authority to approve the form of contract for the IC, and that this approval is the equivalent of setting rules and regulations. Alternatively the Board can approve a set of rules and regulations which incorporates the provisions of the contracts which are approved by the Board. Section 3 of the EPCA also contemplates approval of rates to be charged under specific contracts, referring to *“rates to be charged, either generally or under specific contracts, for the supply of power within the province...”*

The contracts filed by NLH for approval have been developed in consultation with the IC and it was confirmed that Corner Brook Pulp and Paper Limited and Abitibi Consolidated Company of Canada agree with the contractual language proposed with the exception of the treatment of transformer losses as discussed elsewhere in this decision. North Atlantic Refinery Limited also agrees with the contract language proposed with the exception of Article 9.04 relating to NLH’s proposed limitation of liability for damages arising from NLH’s own negligence, and in particular the proposed cap on the liability. As of the end of the hearing this issue is still outstanding and both parties have put their positions to the Board for resolution.

**The Board will approve the rules and regulations set out in NLH’s contracts with the IC, with the exception of the proposed contract with North Atlantic Refinery Limited.**

#### ii) Limitation of Liability – North Atlantic Refinery Limited

NLH currently has a power supply agreement, dated December 16, 1987, in place between Newfoundland Processing Limited [now North Atlantic Refinery Limited (North Atlantic)] for the supply of power to the refinery at Come by Chance.

In the proposed Industrial Contracts NLH included a revised Article 9 dealing with liability for service. Specifically Clause 9.04 limits NLH's liability in respect of direct loss or damage caused by NLH:

- 9.04 (1) *Subject to Clause 9.04(2) hereof, Hydro shall be liable for and in respect of only that direct loss or damage to the physical property of the Customer caused by any negligent act or omission of Hydro, its servants or agents. Customer agrees that for the purpose of this Clause 9.04, "direct loss or damage to the physical property of the Customer" shall not be construed to include damages for inconvenience, mental anguish, loss of profits, loss of earnings or any other indirect or consequential damages or losses.*
- 9.04 (2) *Hydro's liability under sub clause 9.04(1) applies only when the direct loss or damage to the Customer arising from a single occurrence exceeds the sum of \$100,000. In no event shall the liability of Hydro exceed the sum of \$1,000,000 for any single occurrence.*
- 9.04(3) *Customer further agrees that any damages to which it may be entitled pursuant to clause 9.04(1) shall be reduced to reflect the extent to which such losses or damages could reasonably have been reduced if the Customer had taken reasonable protective measures.*

North Atlantic does not agree with the proposed contract wording and believes that the ceiling of \$1,000,000 on damage claims is inadequate to address its anticipated losses in the event that its energy supply is interrupted as a result of NLH's negligence. (Pre-filed Evidence, G. Mifflin, pg. 2) During oral testimony Mr. Mifflin described the effect of a disruption in energy supply on the refinery processes and operations by stating that this situation generally requires an emergency shutdown of all process units and causes loss of product through flaring. Mr. Mifflin further stated that once production has been interrupted as a result of a power failure it usually takes 5-7 days to bring the refinery back to full production. Examples were quoted of the extent of damages, estimated to be in excess of \$19,000,000, incurred by the refinery for two previous outages. It is North Atlantic's position that NLH should not be able to limit its exposure for direct losses incurred as a result of NLH's negligence and proposes that there be no ceiling on the amount recoverable from NLH. If the Board deems a ceiling necessary it should be set at \$10,000,000 per occurrence.

NLH's position is that, in light of the particular sensitivity of the refinery to power outages as short as 3 minutes or less, it is not appropriate that NLH and its customers bear the full cost of these damages. They submitted that the proposed \$1,000,000 cap, which is acceptable to the other IC, is a reasonable compromise and should be approved by the Board. (NLH, Final Argument, pg. 86/27-30)

The Board notes there is no mechanism in the Act for NLH and North Atlantic to bring this dispute before the Board to facilitate a mutually agreeable settlement. Instead NLH has submitted a contract, with the disputed clause, to the Board for approval. The Board also recognizes that the issues involved may have a significant impact upon both North Atlantic and

NLH. Implementation of the contract as proposed by NLH would require that the Board make an order which limits the common law rights of North Atlantic to pursue recovery in the courts of the Province. On the other hand, implementation of the contract as proposed by North Atlantic would require that NLH, and ultimately its customers, be liable for damages of a minimum of \$10,000,000 per occurrence.

In light of the importance of this issue upon both North Atlantic and NLH, and its other customers, it is imperative that sufficient evidence be offered to allow the Board to fully consider the two viewpoints. The Board sees merit in the argument that it is inappropriate for the other customers of NLH to bear the full cost of an industry specific sensitivity to power interruption, yet no evidence was called to show the impact upon the other NLH customers. It may also be argued that this risk is a cost of doing business, which should be absorbed by North Atlantic, yet no evidence was called to establish the costs and the impact upon North Atlantic of incurring these costs. No evidence was presented either as to potential sources of backup power or other ways in which damage from power interruption may be mitigated, nor was there any evidence on practices at other refineries. In addition, while there was some suggestion during the hearing that insurance is not available to cover this type of loss, the parties did not file any evidence on this point.

The Board finds that the evidence presented was inadequate to allow the Board to impose the liability provision as proposed by either of the parties. The Board is not satisfied that the liability provision is reasonable and necessary and will not accept clause 9.04 as part of the rules and regulations of the provision of service to North Atlantic. The Board acknowledges that the decision to exclude this provision from the contract will result in the continuance of the current situation in that the liability of NLH will have to be established and limited according to common law. However, the Board notes that it has not decided upon the merits of the liability provision and that, under the *Act*, the parties may bring this issue back before the Board.

**The Board will approve the rules and regulations set out in NLH's contract with North Atlantic Refinery Limited, but excludes Clause 9.04, which describes the liability of NLH.**

#### **4. Wheeling Rate**

NLH currently wheels energy for Abitibi Consolidated from Grand Falls to Stephenville under the following contract terms (pg.6, Industrial Contract):

*“The Customer may wheel Energy through Hydro’s transmission system from its Buchans, Bishop’s Falls and Grand Falls generating stations to its Stephenville paper mill at those times when that Energy is surplus to the needs of its Grand Falls paper mill. Energy wheeled from the Customer’s electric generating station shall be wheeled at the wheeling rate approved by the Board. In each Month the amount of Energy delivered to the Customer’s paper mill at Stephenville will be the amount supplied by the Customer at Buchans or Grand Falls, or both, less the average percentage losses on the Hydro system approved by the Board and this amount shall be credited against the Customer’s Firm Energy in that Month.”*

Currently NLH calculates the wheeling rate by dividing the total Island Interconnected transmission revenue requirement by the transmission energy output (Pre-filed Evidence, J. A. Brickhill, JAB-1, Schedule 1.5). The current wheeling rate is \$0.00649/kWh and NLH has proposed this rate increase to \$0.00695/kWh as calculated in IC-34. The forecast revenue from the wheeling rate is \$6950 (IC-34). The IC have objected to the inclusion of non-grid radial transmission expenses in setting the wheeling rate.

NLH's wheeling rate is based on costs and energy associated with the common transmission grid. NLH has proposed that the GNP transmission assets be assigned common and are included in the calculation of the total Island Interconnected system transmission revenue requirement. The allocation of radial transmission costs in the calculation increases the wheeling rate by 28.47% for the GNP interconnection alone. (IC-241) Because of the Board's decision to continue the assignment of the GNP transmission assets to rural interconnected, the calculation of the wheeling rate will have to be revised.

The issue for decision by the Board is whether the calculation of the wheeling rate should only include those transmission costs associated with the 230 kV grid since, according to the IC, the wheeling involves only grid transmission. The IC have also objected to the calculation of transmission losses in the wheeling rate. NLH assumes 4% transmission losses in its calculation of the proposed wheeling rate, which is the average percentage losses of 3.6% on the NLH system as determined for 1999. (IC-118) The IC point out that the average system losses over the last five years is 3.47% and the nine year average is 3.48%. (IC, Final Argument, pg. 132)

The wheeling rate is not a cost based rate but rather a rate for a service that can be provided since the plant is in place. In order to calculate the "value" of the service, NLH has tried to use a method that reflects both the benefit derived by the customer and its contribution in providing the service. The Board agrees with NLH that it would not be efficient or practical to undertake a load flow study in order to find where the energy is actually going and the Board is not convinced this is necessary in any event. NLH's methodology appears to be a good approximation of the average cost per kWh for interconnected transmission system that is assigned common use. The Board agrees with IC that the calculation of transmission losses should reflect experience over the last number of years and will order that the calculation be revised as in IC-256.

**The Board accepts NLH's methodology for calculating the wheeling rate but will require the calculation of the rate to be revised in light of the Board's decision on the assignment of the GNP costs. In the case of the transmission losses, NLH will be required to use the average losses on the system for the last five years (1996-2000) calculated at 3.47%.**

## **5. Rate Design**

### **i) NP Energy Only Rate**

NP initiated a proposal at NLH's 1990 rate referral for a demand energy rate form from NLH. In its report the Board recommended that NLH present at its next rate hearing "whatever information it may have with regard to a rate with a demand charge component for discussion



*and determination of a date for filing a rate proposal.*” In the 1992 rate referral NLH proposed an energy only rate but filed alternative rate forms for consideration by the Board. In the 1992 report the Board recommended an energy only rate for NP but also recommended that *“Hydro and NP develop an acceptable rate form for review by the Board at the hearing to be held on Hydro’s cost of service methodology...”* At the 1992 COS hearing NLH and NP informed the Board that the development of an alternative rate form for NP was not yet finalized. The Board did not recommend a time limit on the submission of the proposed rate form.

The issue was raised again at NP’s 1996 general rate proceeding and in P.U. 7(1996-97) the Board ordered NP to follow the direction given in the Board’s 1993 generic COS report and consult with NLH on the development of an acceptable rate form containing an appropriate division of demand and energy costs.

In this Application NLH states that *“Hydro and Newfoundland Power have reviewed this issue and both companies concur that an energy only rate to Newfoundland Power is still appropriate.”*(Pre-filed Evidence, D. W. Osmond, pg. 9/27-31). NLH provided a copy of a letter from NP to NLH outlining its current position which states:

*“It is Newfoundland Power’s view that, while a demand-energy rate may be theoretically desirable in many circumstances, introducing such a rate structure into the power purchase arrangement between Newfoundland Hydro and Newfoundland Power is neither necessary nor desirable in the current environment”.* (PUB-68)

The letter also outlined NP’s reasons in support of maintaining the existing energy only rate form:

1. A demand energy rate would have a tendency to create volatility in the earnings of both NLH and NP from year to year.
2. The increased business risk earnings volatility would be reflected in the utilities’ cost of capital and tend to put upward pressure on consumer rates.
3. Potential for variability in consumer electrical rates.
4. A demand energy rate is not necessary to provide appropriate signals with respect to the cost of electrical demand as the demand component of current consumer rate structures appropriately reflects all cost components and are sufficient in their present form to deter consumers from placing unwarranted demands on the electrical system.

## **ii) NLH’s Proposal**

For the reasons outlined above NLH is proposing an energy only rate for NP in this Application. In IC-239 NLH confirms that it concurs with NP’s conclusion outlined in the letter of PUB-68 and referenced above. One of the primary reasons cited by NLH is the fact the NP is not an end-user of the electricity it purchases and so the load pattern of NP to NLH is affected by the demand of NP’s customers and how they respond to NP’s rate structure (IC-239). In contrast the IC are an end-user and able to change their load pattern and affect the demand charge paid. NLH also submits that the energy only rate allows for better cooperation between the two

utilities regarding the operation of NP's generation and also reduces revenue volatility and corresponding lowers business risk for both utilities (CA-55).

**iii) Positions of the Parties**

Mr. Osler supports the establishment of a multi-part rate for NP stating:

*"We agree that the NP rate structure appears to be inappropriate for this type of customer. It is clear that NP subjects Hydro to similar cost pressures as large GS and industrial customers, and for simple cost causation reasons should have a similar multi-part rate in place which includes demand charges (including appropriate ratchets), energy charges and fixed charges as necessary (compared to the status quo energy charge which notionally includes the demand and fixed components of NP's cost of service). (Pre-filed Supplementary Evidence, C. F. Osler, pg. 29)*

Dr. Wilson suggests that NLH's costs and wholesale rate structure (to NP) be calibrated in this proceeding so that retail rate design in the next NP rate case can reflect the appropriate cost based charges that NP will actually realize as its retail sales volumes change. (Pre-filed Evidence, Dr. J. W. Wilson, pg. 21)

Mr. Bowman states that the current wholesale rate design for sales to NP with only a flat per kWh energy charge sends incorrect price signals to NP and is not reflective of the costs it imposes on the system (Pre-filed Evidence, C. D. Bowman, pg. 4). A rate design incorporating time varying demand and energy charges as well as an interruptible rate option is suggested. It is Mr. Bowman's position that a more complex rate structure to NP is justified based on the fact that NP represents over 60% of NLH's sales in the test year.

On the issue of revenue volatility for both utilities Mr. Bowman does not agree that this is a reason to forgo this type of rate structure, stating that: *"...companies the size of Hydro and Newfoundland Power should be able to manage this low level of volatility with little impact on rates"* and that IC are able to manage the volatility in manufacturing costs associated with demand charges. His summary position is that *"a small increase in volatility is a minor consideration when weighed against the benefits arising from the introduction of more complex rate structures for large volume customers."* (Pre-filed Evidence, C. D. Bowman, pg. 13-14)

Mr. Brockman does not agree with Mr. Bowman's suggestion that the current energy only rate does not reflect the costs NP imposes on the system, stating that: *"The rate that NP pays flows directly out of the cost of service study and therefore by definition recovers the cost of serving NP. The demands of NP are fully reflected in the cost of service study, and as these demands change, the costs allocated to NP change."* (Supplemental Evidence, L. B. Brockman, pg. 4)

Mr. Brockman also does not agree with Mr. Bowman that a more complex rate structure is justified for NP based on the amount of power it purchases from NLH. He suggests the real issue is: *"whether a demand/energy rate will cause NP to change their rate designs to their current customers, or to perform more cost-based DSM, balanced against whether the*

*demand/energy rate will create such volatility in the earnings streams of both utilities that it is inadvisable.*" (Supplemental Evidence, L. B. Brockman, pg. 4)

In reply evidence, Mr. Brickhill responded to the position of the parties with respect to a demand energy rate for NP. He outlined a number of reasons why he supports the use of an energy only rate for NP, including the operational coordination between NP and NLH and the fact that NP is not able to respond fully to NLH's price signals since its demand is derived from the demands of its customers (Supplementary Evidence, J. A. Brickhill, pg. 9/8-26; pg. 6/1-8). Mr. Brickhill also states that an energy only rate in conjunction with the RSP for NP is appropriate and provides a more precise matching of revenue and cost (Supplementary Evidence, J. A. Brickhill, pg. 8/12-16). He agrees that the demand energy charge for NP could create earnings volatility for NP, but does not agree that such a rate structure would cause the same level of earnings volatility for NLH because of the RSP (Transcript, Nov. 26, 2001, pg. 35/55-59 & 75-77).

As noted above the issue of whether a wholesale rate structure for NP should be designed consisting of both an energy and demand charge has been before the Board since 1990 when it was first raised by NP. At that time NP argued that it was unable to send proper pricing signals to its customers until it gets a proper pricing signal from NLH. NP also argued that NLH's rate structure should expressly or implicitly have a demand charge component to track costs more closely (Board's 1990 report, pg.76). It was stated by NP that the lack of a proper rate design (from NLH) gives little incentive for NP to engage in demand side management programs which were seen at the time to be important responses to increases in rates forecast. At this hearing NP states that agreement between NLH and NP on an appropriate demand energy pricing structure could not be reached because of the potential earnings volatility. The importance attributed by NP in NLH sending proper price signals in its rates was not addressed and it is not clear from the evidence whether this is (or ever was) important or in fact what has happened in the interim to result in a change in position.

In response to the Board's recommendations and directions to both utilities since 1992 to develop an acceptable rate form for review by the Board, NLH filed a letter from NP outlining their position and reasons why they have not been able to agree on an acceptable demand-energy rate form. No analysis or supporting detail was filed with the letter and no additional evidence was brought forward by either NP or NLH on the issue.

The Board has also attempted to deal with this issue as part of recent hearings. In particular, the terms of reference for the 1998 hearing for NP stated that the Board wished to receive evidence on the issue of a demand energy rate for power purchased by NP from NLH. At the pre-hearing conference in September 1998 the Board heard representations from NP, NLH, the IC and Government that the recently announced Energy Policy Review by the Government would be dealing with, among other things, existing pricing methodologies and practices, current pricing structures on the Island and in Labrador, future pricing and competition, and average versus marginal cost pricing. It was argued that the planned hearing would duplicate the efforts of the on-going Energy Policy Review and that the Board should delay consideration of these matters. The Board agreed at that time but notes that the Energy Policy Review (now the Electricity Policy Review) is still ongoing.

**The Board finds it is not in a position at this time to make a final determination on the issue of whether an energy only rate is appropriate for purchase of power by NP from NLH. The Board has noted the positions of the parties but further evidence will be required from both NP and NLH before making a final decision. If the Electricity Policy Review currently underway does not address this issue as put before the Board at the pre-hearing conference in September 1998, the Board will address it at NLH's next general rate hearing. At that time the Board will expect NLH to file supporting evidence with its application to address the demand energy pricing issues raised in this hearing.**

**iv) Other Rate Design Issues Raised**

**Seasonal Cost Variations and Marginal Considerations**

The issue of seasonal cost variations and marginal costs as it relates to rate design was raised during the hearing by several of the expert witnesses.

Dr. Wilson recommended that NLH should prepare and file rates that reflect seasonal cost variations. He also recommended that marginal cost considerations should receive greater attention by NLH in its rate design. (Pre-filed Evidence, Dr. J. W. Wilson, pg. 7/4-10)

Mr. Brickhill addressed this issue in Supplementary Evidence, stating that he agreed that marginal costs convey better price signals and achieve greater allocative efficiency than embedded cost rates. However it is his view that marginal cost based rates have no meaningful relevance in this Province because of the existence of the rural subsidy and the RSP, which distort price signals and confuse the picture on marginal cost based rates. As well, NLH has filed its COS study with this Application using embedded costs (and not marginal costs) as directed by the Board. He states that NLH takes marginal costs into consideration when designing rates when it is clearly appropriate, such as when it designs non-firm service rates. (Supplementary Evidence, J.A. Brickhill, pg. 1-3)

The CA recommends in final argument that the Board hire an independent consultant to review and recommend rate designs for electricity consumers in the Province and that this report should be considered as part of a public hearing. Part of this recommendation is based on the fact that NLH does not have updated studies of marginal costs and time-of-use rates. It is the CA's position that NLH is *"missing an opportunity to better meet its rate design criteria related to market efficiency and cost based rates, and to improve customer service by offering rate options, and providing consumers a level of control over their bills."* (CA, Final Argument, pg. 46)

The Board notes the recommendations put forward by the CA and Dr. Wilson with respect to marginal cost pricing and rate design. It also acknowledges the position of NLH put forward in its final argument (pg. 75) that *"it would not be appropriate to study marginal cost considerations in Newfoundland for the reasons set out in Mr. Brickhill's supplementary evidence."* As noted previously, the Board had a pre-hearing conference for NP in September 1998 to consider, in part, the issues of rate design alternatives based upon marginal costs, time-of-use design principles and other innovative rate options. The Board deferred consideration of

this matter (and others) after hearing representations from NLH, NP and the Government that the Energy Policy Review announced by Government would be addressing these issues and that the Board should await the results of that review.

**The Board believes that, in light of the many other matters which it has requested NLH to address and also the fact that the Electricity Policy Review is ongoing, it would not be timely to commence any study of marginal costs considerations at this time. The Board will continue to monitor this situation with a view to determining an opportune time to act on this initiative.**

## **6. Rules and Regulations for Service**

NLH proposes to use one set of Rules and Regulations for all service areas as set out in Schedule B to the Application. (Pre-Filed Evidence, P. R. Hamilton, pg. 14-15/31-2) These proposed Rules and Regulations are essentially the same as those already approved by the Board for NP. The most substantive change involves the rate descriptions for NP and the IC dealing with transformer losses. This issue was raised during the hearing and has been dealt with on pg. 117 of this decision.

The only intervenor who raised any issue with the Rules and Regulations was the CA. Mr. Bowman, on behalf of the CA, suggested changes to Clauses 4, 10 (c) and 10 (g). (Pre-Filed Evidence, L. A. Bowman, pg. 17-18)

Clause 4 deals with NLH's policy on return of a customer's security deposit, which states this will occur only "...*When the Customer ceases to use the service,...*". In response to CA-93 NLH indicates that its practice is to refund a security deposit after a customer has demonstrated a good credit history of greater than 2 years. Mr. Bowman recommends that Clause 4 be revised accordingly. NLH does not disagree with this proposed change.

Clause 10 (c) of NLH's proposed Rules and Regulations states, "...*Hydro may charge interest at a rate equal to the prime rate charged by chartered banks on the last day of the previous month plus five percent.*" In response to CA-95 NLH indicates that once its new customer service system is in place it will charge the full amount outlined in Clause 10 (c). Mr. Bowman recommends that Clause 10 (c) be changed to state that NLH will charge an interest rate of prime plus 5% on delinquent accounts. He suggests this change will avoid confusion and potential accusations of discrimination. NLH does not disagree with this proposed change.

Clause 10 (g) states that "*When a Customer has been under-billed due to an error on the part of Hydro or due to an act or omission by a third party, the Customer may, at the discretion of Hydro, be relieved of the responsibility for all or any part of the amount of the under billing.*" In response to CA-96 NLH states that its current practice is to recoup all under billings; however where a period of time exceeding one year has elapsed, only the portion owing in the current calendar year will be collected. Mr. Bowman submits that NLH should collect the total amount of under billings and recommends that the wording of Clause 10 (g) be changed to reflect this. NLH does not agree with this change as suggested by Mr. Bowman, stating in final argument

that the current practice of collecting under billings due to its error, for up to a period of a year, is appropriate. (NLH, Final Argument, pg. 85)

The Board agrees with the suggested wording changes to NLH's proposed Rules and Regulations for Clause 4 and Clause 10 (c) as suggested by the CA. In respect of Clause 10 (g) the Board notes that the wording proposed by NLH is the same wording as in NP's Rules and Regulations. The Board is also not aware of any concerns or problems of customers regarding NLH's current practice of collecting under billings. Accordingly, the Board will not direct NLH to adjust the wording of Clause 10 (g) as proposed by the CA.

**NLH will be required to submit revised Rules and Regulations incorporating changes to Clause 4 and Clause 10 (c) as accepted by the Board for final approval with the revised Rate Schedules to be filed.**

## **7. Effective Date and Method of Rate Change**

This Application was prepared and submitted on the basis of forecast test year costs for 2002, as required by Subsection 3 (a) (ii) of the *EPCA*. Normally this would mean that rates would be implemented at the beginning of the test year, in this case January 1, 2002. Because of the length of the proceeding this implementation date is no longer possible. NLH has proposed in its final argument that the same rates that would have been effective on January 1, 2002 based on the Board's final ruling, be ordered to become effective at the earliest possible implementation date.

Specifically NLH has requested the following:

1. That the rates, excluding Labrador Interconnected rates for firm customers, be effective from consumption on and after the implementation date, as ordered by the Board, and be the same rates as would have been effective on January 1, 2002.
2. That the rates for Labrador Interconnected firm customers be effective for bills issued on and after the implementation date, as ordered by the Board, and be the same rates as would have been effective on January 1, 2002.

With respect to the RSP, NLH has proposed that customer balances in the respective plans and year-to-date RSP activity be fixed at the month end prior to rate implementation based on the current approved methodology. Changes to the RSP, as a result of this Order, would be implemented concurrent with implementation of new rates.

The Board agrees with NLH's proposal regarding the method of implementation of rate changes. Given the length of the proceeding and the fact that rate changes are not likely to be implemented until after July 1, 2002 the Board does not view the prospect of prorating rate changes based on customer's electricity consumption since January 1, 2002 as practical. In considering this proposal the Board recognizes that there will be an impact on the RSP balance for the period prior to implementation of any changes in rates and RSP recovery. This impact is

primarily the result of the price of oil in base rates for the first part of 2002 remaining at \$12.50 Cdn/bbl as set in the existing RSP.

While the Board has attempted to assess the magnitude of the impacts of the decisions it has made using the COS studies filed in evidence, it is not possible to determine the specific rate impacts on the various customer classes.

**In order to finalize rates to be implemented as a result of this Application, NLH will be required to incorporate the decisions of the Board by:**

- 1. adjusting its revenue requirement and calculation of rate base and return on rate base;**
- 2. completing a revised COS study for the 2002 test year; and**
- 3. revising its proposed Schedule of Rates for the various customer classes based on the updated cost of service.**

**and filing the above with the Board for approval. The Board will review NLH's revised filing to ensure its decisions are appropriately incorporated and then issue a final Order approving or modifying, as it deems appropriate, the rate base, NLH's return on rate base and the revised rates for NLH's customers for the 2002 test year.**

## X. OTHER ISSUES

### 1. Code of Accounts

Section 58 of the *Act* states:

*“58. The board may prescribe the form of all books, accounts, papers and records to be kept by a public utility and a public utility shall keep its books, accounts, papers and records and make its returns in the manner and form prescribed by the board and comply with all directions of the board relating to those books, accounts, papers, records and returns.”*

During 1998 NLH implemented a new accounting system which resulted in a new chart of accounts and changes in the coding of accounts. In 2000 several additional changes affecting the account groupings of inventory and non-inventory items were implemented (GT, 2001 Annual Financial Review of NLH, pg. 2). On October 4, 2000 the Board advised NLH that its code of accounts was approved on a provisional basis, subject to final approval at a general rate hearing. This rate hearing is the first application subsequent to the provisional approval.

GT has expressed the opinion in reports to the Board that NLH’s code of accounts is adequate to meet the reporting requirements of the Board. (GT 2000 Annual Financial Review of NLH, pg. 3; GT 2001 General Rate Hearing Report, pg. 3)

NP questioned whether the accounts should be set up to separate the regulated and non-regulated operations of NLH. (Transcript, Jan. 8, 2002, pg. 22-23/23-102) NP recommended that the Board order NLH to maintain separate accounting records and produce separate financial results for its regulated operations. (NP, Final Argument, pg. H-2) Mr. Brushett of GT suggested that NLH be specifically directed to set up an account code structure that will allow them to identify regulated from non-regulated activities. (Transcript, Jan. 8, 2002, pg. 22/52-58)

The Board is not convinced that NLH needs separate accounting records to facilitate the distinction between regulated and non-regulated activities. The existing code of accounts should be structured to account for regulated and non-regulated activities as a normal reporting function. The Board is also of the opinion that there should be clearly defined policies and procedures to account for intra and inter-corporate transactions which apply to all related parties.

**The Board will approve the code of accounts submitted by NLH and will require NLH to file written policies and procedures for the accounting of all intra and inter-corporate transactions, indicating what is to be included in regulated and non-regulated activities.**

### 2. Regulatory Reporting

NLH is directed by Section 17 of the Hydro Corporation Act to maintain certain accounting methods and a Rate Stabilization Plan. The Board is authorized by Sections 58-69 of the Act to give direction on how NLH is to maintain their accounts and reporting requirements.



During the hearing NP pointed to current regulatory reporting of NLH and provided commentary on improvements that could be made in order to create a more transparent regime. Mr. J. T. Browne focused on the idea that proper regulatory reporting must focus on policies and procedures and avoid detailed reviews and controls (Pre-filed Evidence, J. T. Browne, pg. 6/2-3). These policies and procedures must be reviewed in an open and transparent process (Transcript, Nov. 2, 2001, pg. 9/83-85), and used until the utility comes back to the Board to have the changes approved (Transcript, Nov. 2, 2001, pg. 9/85-87). Mr. J. T. Browne suggested policies and procedures in the following areas:

1. A very clear definition of regulated operations. This would include providing separate financial reports on the regulated activities of the utility (Pre-filed Evidence, J.T. Browne, pg. 9/12-13).
2. The identification of various types of goods and services that the utility provides to or acquires from its affiliates and non-regulated operations, and the establishment of transfer prices (Pre-filed Evidence, J. T. Browne, pg. 27/16-19).
3. The determination of how the revenue requirement will be established and how that revenue requirement will be recovered through rates (Pre-filed Evidence, J. T. Browne, pg. 7/4-6).

Mr. J. T. Browne points out that *“a regulatory board should rely on internal compliance procedures of the utility rather than imposing additional external controls”* and that *“the imposition of regulatory controls should consider the direct dollar costs to impose and comply with the controls, costs borne by both the utility and the regulator. It should also consider other costs of imposing the controls, including the loss of management flexibility.”* (Pre-filed Evidence, J. T. Browne, pg. 6/8-9;pg. 5/17-20).

In cross-examination the CA explored the method of determining the rates charged for inter-company transactions.

Since 1996, when NLH came under the jurisdiction of the Board, the system of reporting has been evolving to meet regulatory needs. However, it became clear during the hearing that the current system of reporting does not promote the efficient production of relevant information on the regulated activities of NLH. The consolidated statements which included non-regulated activities, although useful in creating an overall picture, did not provide the information required for a full understanding of NLH’s regulated activities.

Although the regulated activities of NLH are defined by various pieces of legislation, the Board concluded that it would be useful to summarize these activities, with references to the appropriate legislation, and place this summary on file with the Board.

**NLH will be required to file separate financial statements for regulated and non-regulated activities. This will apply to all regulatory reporting including both quarterly and annual reports. NLH will continue to file annual consolidated statements which should be accompanied by precise reconciliation between regulated and non-regulated activities.**

**NLH will be directed to prepare a summary and index of all policies related to regulated activities and place this summary on file with the Board on or before June 30, 2003.**

### **3. Duplication**

Observing the day-to-day activity of NLH and NP within the Province, one can readily understand the public perception that duplication exists since both companies appear to be carrying out some of the same work in the same industry, using similar vehicles and performing similar work activities in common geographic areas on the Island portion of the Province. That perception is a correct one in that NLH and NP are electric utilities delivering electricity to its customers using transmission and distribution lines and poles that are not distinguishable as being owned by one or the other. Furthermore, both utilities are delivering electricity to customer classes that are similar in many respects and both draw upon the same system elements to serve their customers. For example, depending on circumstances, both companies employ the same generation plants and portions of the island transmission and distribution grid from time to time.

Following various exchanges of correspondence between the CEO's of both utilities in 1995 and 1996, Mr. Reeves testified that a joint task force was established in 1997 consisting of representatives from each utility making up 18 working groups or committees mandated to explore reduction in costs through sharing of services or the removal of duplication. A steering committee was put in place consisting of Mr. John Evans from NP, Mr. Dave Reeves from NLH and Mr. Bob Clarke and Mr. Gerard O'Rielly, business managers of the unions representing the workers in the respective utilities. (Transcript, Oct. 2, 2001, pg. 32-33/90-37) The responses to requests for information CA-190 and CA-201 included copies of the minutes and reports of the various working groups and the steering committee meetings that were held commencing in 1997 and continuing to 2000. It appears from the evidence that the working groups concluded their assignments without achieving any substantial savings to consumers. According to CA-201, no final report of the task force was ever completed although the Board gained some insight into the resulting challenges confronting both organizations from the excerpts contained in the latest draft report:

- *“There were a number of positive benefits flowing from the process of carrying out this study. The most significant benefit was the enhanced communication between over 70 employees of both organizations.*
- *The structure of the review did not, however, lend itself to recommended changes which impacted negatively one or more parties.*
- *While all participants support the concept of providing reliable customer service at the lowest reasonable cost, the tactics of measuring and achieving this are often viewed quite differently.*

- *It was generally felt that while there are not a lot of areas of overlap, there are a few where a different approach may result in lowering costs.*
- *A plan could be developed to work toward a more streamlined operation over (say) five years. This could result in requiring fewer workers with associated cost savings. This might involve a reduction in total numbers of staff and may involve doing work for each other at times. An agreement such as this could not be reached given the diversity of the group.”*

The final argument of the CA recommended that the Board devise a standard to deal with duplication of operations and services between the two utilities and commission a third party report on the cost of duplication with appropriate recommendations to be filed by the next rate hearing. (CA, Final Argument, pg. 53-54) The IC in their final argument recommends the Board conduct a similar study and direct the utilities in accordance with its recommendations (IC, Final Argument, pg. 124)

The Board recognizes the considerable time (in excess of five years) and resources committed by both utilities in wrestling with duplication. This effort combined with repeated draft reports raises serious concerns for the Board given the inability of both utilities to properly conclude on the mandate of the joint task force, the difficulties encountered throughout the process and the limited value added at the end of the day for electrical consumers throughout the Province. It is not surprising, therefore, that the perception of duplication persists among the public in light of such precarious circumstances and the lack of closure being brought to this recurring issue.

The Board is not persuaded to commission a costly study into duplication at the present time, particularly with a view to the structural issues involving both utilities being addressed through the Electricity Policy Review. Neither is the Board prepared to let the continuing uncertainty surrounding duplication remain. The Board is of the opinion that with the right mindset by both utilities the question of duplication can be effectively and definitively resolved without the future intervention of the Board.

**The Board will require that NLH submit a final report on the results of joint efforts to date to reduce duplication between NLH and NP. The report should identify and make recommendations concerning additional collaborative opportunities between the two utilities on eliminating duplication and expanding cooperation in the interests of electricity consumers. This report should be concluded by both utilities, if possible, and in any event should be provided to the Board no later than December 31, 2002.**

#### **4. Customer Service Issues-Labrador Isolated Diesel System**

Throughout the course of the hearing the Board heard little evidence critical of the reliability of NLH’s service. The exception arose during public participation days in Happy Valley-Goose Bay where representatives from communities along coastal Labrador served by isolated diesel systems appeared before the Board.

Mr. Nat Moores, Mayor of L'Anse-au-Clair representing the Combined Councils of Labrador stated, *"that's always been a concern, especially reliability. The diesel power, many complaints you will have from communities is not enough power, a lot of outages, problems associated with that. And in our region, the uncertainty of what's happening with the power in Quebec, and again, having to go back on diesel. So there's always been concern from the entire membership or the membership in the coastal Labrador"*. (Transcript, Oct. 19, 2001, pg. 24/45-52)

Mr. Henry Broomfield, the Deputy Mayor of Nain, outlined many of the concerns of residents in his community who experienced brown outs and voltage fluctuations, particularly at night. (Transcript, Oct.18, 2001 pg. 44/74, pg.45/20-47, pg. 50/62) The Board heard from several other presenters who were concerned that regular power outages may affect the economic viability of some of the businesses. Ms. Melita Power, Town Manager of Charlottetown, told the Board that the shrimp processing facility opened in the summer of 2001 had daily power failures. Although there was some intervention by NLH service personnel, power failures continued until early October. The power outages resulted in lost production time, equipment failure and increased expenses. (Transcript, Oct. 19, 2001 pg. 29/5-76)

The Board also heard of other problems with NLH's overall service. Amongst the issues raised were issues with the format of NLH's billings. It was also noted that many of the community elders, besides not being able to read English, could not understand the bill presentations. (Transcript, Oct. 18, 46/21-34 & lines 55-73) It was further noted that incidents of incorrect readings, overcharges, and, in particular, discount forfeits compound the problem. (Transcript, Oct. 18, 2001, pg. 45/63)

The Board was informed that meeting bill payment discount dates was a particular problem because of regularly disrupted mail service, particularly in the winter months. On-line banking is an option but many residents do not have access to a computer. (Transcript, Oct. 18, 2001 pg. 47/32-45) When the Board inquired why it took so long for payments to reach NLH, Mr. Broomfield advised that the return payment envelopes were addressed to St. John's and not to the regional office in Goose Bay. (Transcript, Oct. 18, 2001 pg. 52/41-46)

The important message heard from the community representatives from coastal Labrador was that there are common concerns with NLH's service throughout the region. This was evident by the recurring issues repeated throughout the presentations. The Board, guided by its general supervisory responsibilities in Section 16 of the *Act*, and specifically by the reasonably, safe and adequate service provision in Section 37 of the *Act*, is concerned with customer service issues raised by the community representatives served by the Labrador Isolated Diesel system.

**The Board will direct NLH to review the issues raised during the hearing and file with the Board a summary report with recommendations on how NLH may reasonably improve the reliability and quality of service for customers in coastal Labrador communities.**

## 5. Conservation

The issue of conservation and Demand Side Management (DSM) was raised by the CA. The Board also heard several presentations during public participation days which spoke to the importance of conservation, especially as it relates to reducing costs for consumers. In particular, the Board heard from Mr. Bruce Pearce, Climate Change Action Coordinator and Ms. Sarah Peckford, Eco-Team Director for the Eco-Team Program, both of the Conservation Corps of Newfoundland and Labrador (the Corps). They presented the results of some of the work the Corps has undertaken with both NLH and NP, and as well with the Federal and Provincial Governments and others. Mr. Pearce suggests that conservation can play a role in incorporating social and environmental concerns into the area of energy management and can assist consumers in cushioning the impact of the proposed rate increase. Information was provided on the EnerGuide for Houses Program offered by the Corps and the potential reduction in energy use and resulting financial savings that can be achieved. Typical improvements that consumers make as a result of the energy assessment offered under this program include insulation upgrades, air sealing to prevent heat loss, and installation of water conservation kits. (Transcript, Oct. 26, 2001, pg. 9-12/69-26)

As part of its evidence the Corps provided a copy of a letter from NP outlining the results of a meeting between NP and the Corps on agreed discussion areas for possible broader partnerships. The areas identified were:

1. *Greater integration of efforts* - to avoid duplication of efforts, especially in the area of energy advice and assessment services to its customers.
2. *Increasing promotion coordination* - to assist in increasing the profile of the Corps in the Province, including its core conservation message.
3. *Providing financial support* - to assist customers in availing of the services of the Corps, including the possible provision of financial assistance for energy assessments.
4. *Improving customer support* - to explore initiatives such as equal payment and financing plans, which may assist customers in undertaking energy conservation measures, especially those where immediate benefits are not realized.

Ms. Mullalley-Pauly of the Office of Energy Efficiency, Natural Resources Canada in Ottawa spoke during the public participation day in St. John's of the challenges of delivering the message of conservation. The traditional methods of getting this message out, such as bill inserts and advertising, have been generally ignored by consumers. (Transcript, Oct. 26, 2001, pg. 14/40-53) As well, DSM programs of the past, advocated by the utilities, have been met with skepticism by consumers who doubt that a seller of a product would have a real interest in reducing its sales. (Transcript, Oct. 26, 2001, pg. 13/21-30)

However, according to Ms. Mullalley-Pauly, the use of a community based approach, with third party delivery agents, and with a service supplied for a fee has been well received by the same people who have taken little notice of bill inserts and advertising. The efforts of the Corps to relate a conservation program to an energy efficiency program that results in real savings to the end-user are getting the attention of consumers in a way that has not happened with most demand side management programs. This is evident from the number of home assessments that have taken place since January 2000 and the fact that 70% of the assessments result in the recommendations being implemented (Transcript, Oct. 26, 2001, pg. 14/63-66).

The Corps charges a fee of \$100 to consumers for an energy assessment. Ms. Peckford and Mr. Pearce, both of the Corps, explained how the fee of \$100 is a barrier to some consumers who would like to avail of the service (Transcript, Oct. 26, 2001, pg. 27/66-97). The CA in final argument (pg. 53) recommended that *“the utilities work with the Conservation Corps in the implementation of DSM programs and contribute to the \$100 fee for services provided to ratepayers by the Conservation Corps.”*

In response to a request to list the DSM and energy efficiency programs that NLH has implemented in the past five years, NLH replied (CA-20):

*“Hydro has not implemented system wide conservation and load management programs in the past five years and has no definitive plans to undertake system wide programs in the next five years. Hydro has undertaken to complement its customer service delivery function with energy management training and education as outlined in CA-24. Hydro also evaluates opportunities as they arise on island systems for conservation and load management with an objective of rural subsidy minimization. See NP-184(e).”*

In CA-126 NLH further described their current efforts to encourage conservation by its customer groups. In the early 1990s the focus for conservation efforts was on reducing load through reducing energy consumption in electric space and water heating. NLH states *“conservation is now more routinely viewed as a component of an overall customer service function that seeks to maximize customer value in the content of market price signals.”*

The Board agrees that the message of conservation is an important one, for both utilities and consumers. The Board recognizes and supports NLH’s efforts to date in partnering with the Corps and encourages NLH to engage in further discussions with the Corps to explore areas where there are opportunities for further initiatives along the lines of those outlined above by NP. It is recognized that progress by NLH and the Corps in these areas will improve customer access to conservation tools and will assist in customers being able to realize the results of undertaking conservation and energy saving initiatives. The Board also believes that, while these efforts do result in benefits to both NLH and its customers, the implementation and monitoring of such activities are best achieved within the customer service group of NLH. NLH should consider including the area of conservation and customer support on its customer satisfaction surveys. The Board will be able to monitor the results of these efforts in its review of these reports which are provided by NLH as part of its ongoing regulation.

**The Board is persuaded that community based conservation initiatives, similar to those undertaken by the Conservation Corps of Newfoundland and Labrador, have merit in assisting consumers and reducing energy demands which, if sustained, may lower generating capacity requirements into the future. The Board believes NLH should focus attention on conservation and bring forward to the Board a multi-year plan directive to these kinds of initiatives.**

One of the other areas to focus on in terms of the potential for energy conservation and savings is in the Isolated Rural systems on the coast of Labrador. The Board heard from many NLH customers from the coast of Labrador about their high electricity costs. From an economic perspective, although it seems reasonable to expect that a decrease in energy consumption will result in lower energy costs to all consumers, this is not always the case. As described previously in Rural Systems (pg. 120) these systems currently operate at a substantial deficit with rural customers paying considerably less in certain cases than their full COS. In some of the Isolated Rural systems the loss in revenue from reduced consumption may more than offset any savings that may be achieved from DSM programs, with a resulting increase in the rural deficit. This will then cause an increase in the rates to be charged to NP and to Labrador Interconnected customers. However, in systems where capital costs can be avoided through conservation and DSM measures, such as the elimination of a need for capital expenditures resulting from load growth, the results may be different. The Board studied this issue as a part of its 1995 Rural Electrical Service Inquiry and found that *“Conservation programs for isolated areas should be designed to defer expansion of capacity and to target for subsidy reduction rather than lower energy use”*. (CA-2, Report ... On A Referral By The Lieutenant-Governor in Council Concerning Rural Electrical Service, July 29, 1996, pg. 37) The Board believes this recommendation is still valid and may provide future opportunity for cost savings. NLH should continue to explore these opportunities as the need arises for replacement or expansion of generation systems, especially on the Isolated Rural systems.

**The Board will require NLH to include, in all applications for capital expenditure programs where generation is being replaced or upgraded, a cost benefit analysis of any alternatives that may result in reduced load or a deferral of capacity expansion.**

## **6. Long Term Regulation**

The Board, in reflecting on its decisions, is motivated to establish a stable regulatory environment which will serve to effectively communicate the regulatory role and decisions of the Board to all NLH's stakeholders.

For example, the Board notes the importance NLH attached throughout the hearing to the Board sending appropriate signals to the capital markets in the interests of NLH's yet to be determined long range financial targets. Until such time as NLH brings forward its comprehensive financial goals in an application, the Board is not in a position to deal with them. As demonstrated following the review of the evidence in relation to NLH's debt/equity ratio (See pg 42), the Board notes Government's guarantee remains in place which will ensure NLH the same access to the capital markets that it has traditionally maintained. NLH's future intention to operate on a stand-alone basis similar to an investor owned utility is entirely within the hands of

NLH's management. The Board points to the existing regulatory framework that currently regulates NP, an investor owned utility, and suggests it is up to NLH to present sufficient justification in its next application to support its intended longer term directions. In relation to NLH's long term financial targets, the application should contain a comprehensive assessment of regulatory, financial and business risks for NLH compared to similar utilities operating without a Government guarantee. At that time, presumably NLH will bring forward recommendations on an appropriate long term capital structure in light of the costs associated with these risks.

Appropriate financial targets represent only one example of what needs to be done in the long term to effectively regulate NLH. The Board references other areas incorporated in its decisions where it has placed considerable responsibility on NLH, and for this matter itself, to address future regulatory requirements. The Board concurs with Mr. Wells comments in his opening statement "*it will be necessary to achieve the ultimate objective (regulatory) through a period of adjustments*", and notes the Board is prepared to facilitate and expedite its regulatory obligations as quickly as practical.

During the hearing NLH referred to the fact that it was in the process of developing a strategic plan. Clearly, elements of a strategic planning exercise should involve a visioning process, stakeholder consultations and an analysis of opportunities and risks associated with the organization. These and other components of a strategic plan manifest themselves into integrated corporate goals, financial targets and operating plans based on performance measures designed to specifically achieve these goals and targets. Mr. Osmond confirms the financial targets for 2002 are temporary and that NLH needs to put forth a plan to determine where things are going in the longer term and to map this out in the scheduled 2003 application. Mr. Osmond also indicated the link between the strategic plan and the financial structure and points to the need to review these results with the Province particularly in light of the Energy (now Electricity) Policy Review (EPR) (Transcript, Nov. 26, 2001, pg. 22/16-42)

The Board supports the strategic plan initiative of NLH and believes it provides an excellent opportunity to address the intended vision of NLH as an investor owned utility along with related corporate goals and financial targets. The Board strongly believes this process will permit NLH to present to the Board an actual plan on how it intends to achieve and execute its long term goals and objectives, including the Board's regulatory requirements. In particular, the Board encourages NLH during its strategic planning process to incorporate the findings of the Board and integrate the planning and coordination of these regulatory requirements into the process. Examples would include findings related to regulatory reporting, regulatory performance measures, long term financial targets, public policy costs, policies and procedures as well as studies/evaluations.

Integrated planning will permit regulatory decisions in future that are rationally based while minimizing the regulatory risk to NLH. Communications resulting from regulatory decisions will send credible messages that are consistent with the plan and targets of NLH. This will benefit NLH and its stakeholders as well as allow the Board to move forward with the effective regulation of the utility.



**NLH is encouraged to integrate the Board's findings into its strategic planning process.**

## **7. Next Application**

LC-5, in response to a question arising from Mr. Wells' evidence, states that NLH plans to file its next rate application in 2003. Repeatedly throughout the course of the hearing NLH reiterated this timeframe. Mr. Wells in response to questioning from Commissioner Saunders on this issue stated:

*"We can only state our intent at this time and the circumstances of this application and the issues that are being considered, you know, pretty well dictate that we should be back in 2003, but again the Board is going to be aware of all the factors at the end of this hearing and has the jurisdiction."* (Transcript, September 28, 2001, pg.7/33-38)

Having now dealt with this Application the Board is very cognizant of the challenges it has faced resulting from the more than five year hiatus between NLH becoming a fully regulated utility in January 1996 and its first rate application as such in May 2001. Notwithstanding, the Board is of the view that this decision completes the first phase in the process to effectively regulate NLH. The timing of its next rate application is critical to sustaining the momentum established and providing continuity to the process. In relation to the approach taken to this Application, the Board believes NLH also acknowledges the importance of this timing. For example, NLH throughout the course of the hearing referred to long term financial targets, preferential rates, forecast fuel costs and numerous other issues which would be best addressed at their next rate application scheduled for 2003.

The Board notes as well that this decision sets out several directives which are designed to lay the groundwork for the next phase of regulating NLH. Much of this work requested of NLH and indeed other work to be conducted by the Board is time sensitive and is linked to NLH's anticipated date for its next rate hearing in 2003. For these reasons, the Board strongly believes that a commitment to this date is in the interest of all parties involved at this hearing.

**The Board will order pursuant to Section 70 of the Act, that NLH submit its next general rate application to the Board no later than December 31, 2003.**

## **XI. HEARING COST AWARDS**

Both the IC and the Towns of Labrador City and Wabush requested that the Board award costs in their favour respecting their appearance at the hearing. Section 90 (1) of the *Act* states:

*“90. (1) The costs of and incidental to a proceeding before the board shall be in the discretion of the board, and may be fixed at a definite amount, or may be taxed and the board may order by whom they are to be taxed and to whom they are to be allowed and the board may prescribe a scale under which costs shall be taxed.”*

Under normal circumstances the Board is guided by the “*ability to pay*” principle in adjudicating requests for cost awards. The Board believes there are a number of circumstances surrounding this Application that are unusual and have resulted in the length and complexity of the hearing being beyond the norm. The Application represents the first time that NLH is before the Board as a fully regulated utility under the *EPCA* and 10 years have elapsed since the last general rate review. The Board believes the delay in NLH appearing before the Board has complicated the hearing process for the IC through no fault of their own. These circumstances have contributed unduly to the IC’s hearing costs and the Board believes that it would be unfair to expect them to cover their total costs.

**The Board will award costs to the IC. Upon receipt of a detailed statement of costs the Board will fix an amount. The Board’s decision in this matter is solely to recognize the circumstances surrounding this Application and is not intended to set a precedent.**

On the matter of the application by the Towns of Labrador City and Wabush, the Board is not compelled to grant their costs. The CA was appointed by the Lieutenant-Governor in Council to represent all of the Domestic and General Service customers in the Province and most municipalities were served in this way. Labrador City and Wabush decided to directly intervene to represent their particular interests and were in partial attendance during the course of the hearing.

**The application by the Towns of Labrador City and Wabush for costs will be denied.**

## **PART THREE. SUMMARY OF BOARD DECISIONS**

### **I. CAPITAL STRUCTURE**

1. The Board accepts that the Government guarantee plays a fundamental role in NLH's ability to maintain a sound credit rating in the financial markets of the world. The Board concurs that the guarantee fee of \$12,336,000 in the 2002 test year is appropriate.
2. The Board feels the proposed dividend payment of \$70,000,000 in the 2002 test year places an excessive burden on consumers when it is included in revenue requirement. The Board finds that the interest expense and return on equity in the 2002 test year revenue requirement should be based on NLH's dividend policy providing for dividends of up to 75% of its net operating income. The interest cost for the 2002 test year will be required to be reduced using the embedded cost of debt to reflect the cost of financing the dividend in excess of NLH's dividend policy. A corresponding increase in return on equity or net earnings reflecting the requested 3% return on the notional increase in equity will partially offset the interest reduction.
3. The Board finds no statutory basis for treating NLH as an investor owned utility. The Board concludes approval in principle of NLH's request to be treated as an investor owned utility is not justified based on its current operating characteristics. The Board believes NLH's request is premature in the absence of a sound plan by NLH of how it will achieve financial targets similar to an investor owned utility and what impact this will have on its customers. The Board notes that NLH's debt is guaranteed by Government and this ensures NLH's continued access to the capital markets of the world.
4. The Board accepts NLH's proposals for a debt/equity ratio in the 2002 test year of 83/17 and a target short term debt/equity ratio of 80/20. The Board concludes the evidence does not support the principle of NLH moving to a capital structure of 60/40 at the present time. If NLH is committed to move in this direction, it must formulate an appropriate long term financial plan to present to the Board.
5. The Board accepts NLH's request for a 3% ROE in the 2002 test year. The Board acknowledges this level of ROE is below normal market returns because of NLH's position taken in this Application to lessen the rate impact on its customers. Consideration of a more normal return will be subject to a future request by NLH.

### **II. FORECASTING: PRODUCTION AND FUEL COSTS**

6. NLH will be required to use the 30 year average annual hydraulic production of 4,425 GWh as the basis for the test year hydraulic forecast. The Board will also require NLH to commission an independent study into its current forecasting methodology to address the concerns raised in this hearing, including the issues of data reliability, long term trends and climate change. The terms of reference for this study should be filed with the Board in advance. The results of the study will be required to be filed with the Board as part of NLH's next rate application.

7. The 2002 test year forecast of thermal generation will be adjusted to reflect a forecast hydraulic production of 4,425 GWh.
8. The Board finds that a fuel efficiency factor in the range of 615-620 kWh/bbl is warranted. To mitigate potential impacts on NLH's margin which, at 3%, is already below a normal market rate the Board will order an efficiency factor of 615 kWh/bbl. This efficiency factor will also be used for calculating hydraulic variation in the Rate Stabilization Plan (RSP).
9. The Board accepts the 2002 test year forecasts for fuel prices as filed.
10. The Board will require NLH to file by December 31, 2002 a statement of policies and procedures outlining a coordinated, integrated and strategic approach to fuel purchasing. The statement should address managerial accountability for fuel purchasing along with consideration of such issues as an oil hedging program and the adequacy of existing storage capacity.

### **III. REVENUE REQUIREMENT**

11. The Board accepts the depreciation study and approves the changes in depreciation policies as filed by NLH. The depreciation expense proposed by NLH will be required to be adjusted to reflect the Board's decisions on NLH's 2002 capital budget. NLH will be required to submit its next depreciation study in 2005.
12. The Board will approve the extension of the service lives for the transmission lines affected by the Avalon upgrade program as proposed by NLH.
13. The forecast price for No. 6 fuel, as set out by NLH in Table 1 on page 1 of R. J. Henderson's 2<sup>nd</sup> Supplementary Evidence (See Schedule 1 attached to the Order), which shows a 2002 weighted annual average price of No. 6 fuel of \$25.91 Cdn/bbl, will be used in the 2002 test year costs for No. 6 fuel.
14. The Board accepts the diesel fuel costs of \$6,508,000 for the 2002 test year.
15. The Board accepts the Other Fuel Costs of \$871,000 for the 2002 test year.
16. The Board accepts purchased power costs in the amount of \$15,100,000 for the 2002 test year.
17. Certain other costs (insurance, transportation, office supplies, building rentals and maintenance, equipment rentals and loss on disposal) as proposed by NLH for the 2002 test year are accepted subject to any reduction by NLH resulting from the productivity allowance set (See No. 27) by the Board.

18. The Board finds that any reduction in salary costs to be incorporated in the 2002 test year is best managed by NLH within the scope of the vacancy credit adjustment (See No. 19) and in the application of the productivity allowance set by the Board.
19. The Board will order NLH to reduce salaries and fringe benefit expenses for the 2002 test year by an additional \$500,000 to reflect a higher vacancy credit.
20. The Board accepts NLH's proposals for the treatment of employee future benefits and accepts the 2002 test year costs.
21. System equipment maintenance costs as proposed by NLH for the 2002 test year are accepted subject to any reduction by NLH resulting from the productivity allowance set by the Board.
22. NLH will be required to submit to the Board by December 31, 2002 a detailed plan of projected maintenance expenditures over the next ten years for the Holyrood Generating Station.
23. Professional services costs as proposed for NLH for the 2002 test year are accepted subject to any reduction by NLH resulting from the productivity allowance set by the Board.
24. Travel costs as proposed by NLH for the 2002 test year are accepted subject to any reduction by NLH resulting from the productivity allowance set by the Board. NLH will be directed to exclude spousal travel costs from regulated expenses. NLH will also be required to file its policies and procedures for employee travel with the Board.
25. The Board approves NLH's proposal to discontinue treatment of Bay D'Espoir street lighting costs as a regulated expense and will order its removal from the 2002 test year revenue requirement.
26. Miscellaneous costs as proposed by NLH for the 2002 test year, including inventory gain/loss, are accepted subject to any reduction by NLH resulting from the productivity allowance set by the Board.
27. In addition to the other adjustments to the 2002 test year revenue requirement, the Board will require a reduction of \$2,000,000 on NLH's "*other costs*" for the 2002 test year to reflect a productivity allowance.
28. The Board will request its financial consultants to work with NLH to recommend suitable regulatory performance standards which will be used to measure operating efficiencies at NLH and these will be incorporated as part of NLH's ongoing reporting to the Board.
29. The Board will not accept the \$75,000 for "*Communication Plan*" advertising as a regulated expense for the 2002 test year.

30. Subject to adjustments for Bay D'Espoir street lighting, spousal travel and "*Communication Plan*" advertising, the Board concludes that non-regulated expenses are properly excluded from NLH's 2002 test year costs.
31. The Board accepts the capitalized expenses in the amount of \$5,722,000 as proposed by NLH for the 2002 test year.
32. The Board accepts the CF(L)Co allocation in the amount of \$1,910,000 as proposed by NLH for the 2002 test year.
33. The Board acknowledges the benefit to ratepayers of the flow through income from recall power in that it reduces NLH's borrowing costs during the year and accepts NLH's calculation of the notional interest in the 2002 test year revenue requirement.
34. The Board will require NLH to file prior to June 30, 2003 details of the methodology used for calculation of notional interest.
35. The Board will require NLH to include in the 2002 test year revenue requirement an appropriate credit for interest collected on overdue accounts.
36. NLH will be required to revise the calculation of the interest expense for the 2002 test year to incorporate the decisions of the Board.

#### **IV. RATE STABILIZATION PLAN**

37. The Board is not convinced that the interests of the consumers or NLH would be served through the elimination of the RSP and, other than the specific adjustments and changes described in this decision, will not make any other change in the RSP or its operation at this time.
38. The Board is convinced, based on the evidence and issues raised at the hearing, that the design and elements of the existing plan should be reviewed. To that end the Board will commission a study of the RSP, which will include a review of the plan since its implementation, together with the operational issues raised by the intervenors at the hearing. The Board will decide based on the results of that study what action should be taken.
39. The COS price for No. 6 fuel to be used in the RSP for calculating the fuel price adjustment will be based on the monthly 2002 forecast fuel prices as filed in Table 1 of R. J. Henderson's, 2<sup>nd</sup> Supplementary Evidence. This table indicates that the weighted average fuel price for the test year will be \$25.91 Cdn/bbl. In addition, NLH will be required to file updated 12-month fuel forecasts as part of its quarterly report to the Board.

40. The Board does not accept NLH's proposal to increase the cap on the retail portion of the RSP to \$100,000,000. The Board will remove the existing cap of \$50,000,000 on the retail portion of the RSP.
41. Because of the magnitude of the anticipated rate increases which will result from the Board's decision to use the forecast average fuel price in base rates, the Board will not allow any additional recovery of the existing RSP balance until 2003. The Board believes that deferral of the RSP mill rate adjustments together with an extended recovery period mitigates the impact of moving to true "*cost based*" rates incorporating the forecast price of No. 6 fuel.
42. With respect to the recovery of the balance in the RSP the Board will order the following:
- The existing balances in the RSP are to be fixed as of the end of the month prior to the effective date of rate implementation based on the current methodology.
  - The RSP mill rate for the IC will be reset as of the effective date of rate implementation for the remainder of 2002 to 2.80 mills/kWh, which was the rate effective January 1, 2001.
  - The RSP mill rate for 2002 for NP will remain at 1.77 mills/kWh, which was the rate effective as of July 1, 2001.
  - Recovery of the fixed balance outstanding will be spread over a five year period commencing in 2003 using a straight line recovery method. The method for calculating the mill rate adjustments and the date of the adjustments for both the IC and NP will remain the same. The amounts recovered will be credited against the outstanding balance of the plan. Interest will be accumulated and maintained on the balance using the WACC.
  - Recovery or credits of balances that accumulate in the plan after the effective date of rate implementation will be calculated using a straight-line method over a two year period, to be effective January 1, 2004 for the IC and July 1, 2004 for NP.
43. The Board will not make any adjustments to the RSP prior period balances as requested by the IC.
44. The Board accepts the changes in the RSP as proposed by NLH with the exception of the price of No. 6 fuel, the Holyrood efficiency factor, the test year hydraulic production and the increase in RSP cap which are dealt with elsewhere in this decision.

## V. CAPITAL BUDGET

45. The Board will require NLH, commencing with its 2003 capital budget application, to use a net present value methodology together with supporting justification to evaluate projects of a material amount. Where a project is not evaluated against other acceptable alternatives and/or, if the project does not produce a positive net present value, sufficient rationale must be provided to justify implementation. The Board has set out guidelines to be used by NLH in future capital budget applications in Schedule 3, attached to this decision.

46. The Board will order that, for the purposes of establishing the revenue requirement, NLH reduce its approved capital budget by 7½%. This downward adjustment will reduce depreciation and interest expense as well as the forecast rate base for the 2002 test year.
47. The Board will approve an “*Allowance for Unforeseen Events*” of \$1,000,000 as part of the 2002 capital budget but will impose conditions on its use.
48. The Board agrees that further justification should be completed of NLH’s proposal to replace its VHF Mobile Radio system, including a cost benefit analysis of alternatives. The Board will also require NLH to prepare and file an updated version of its Telecommunications Plan with the Board.
49. The Board will approve the remaining capital budget projects not approved in P.U. 30 (2001-2002) with the exception of B-66 (VHF Mobile Radio system).
50. The Board will approve a 2002 test year capital budget of \$36,765,000, adjusted to remove the VHF Mobile Radio system project.

## **VI. RATE BASE**

51. At the present time the Board will not act to adjust the CWCA to reflect the timing difference between the payment of semi-annual long term bond interest and the receipt of the funds for their payment. The Board feels this issue warrants further consideration and will require NLH to submit to the Board, prior to the next rate application, an analysis of this issue.
52. The Board accepts NLH’s proposed treatment of amortizing the foreign exchange loss at the rate of \$2,157,000 per year and its inclusion in the 2002 test year revenue requirement with the average balance of \$85,200,000 forming part of the rate base.
53. The Board approves the approach and methodology used by NLH in determining the 2002 test year rate base.
54. NLH will be required to file a revised rate base and revised calculation of return on rate base which reflects the decisions of the Board.

## **VII. COST OF SERVICE**

55. The Board is not convinced that the LOLH study provides sufficient evidence to justify using a 2 CP allocator for generation demand costs. Furthermore, the Board is not persuaded that the use of any other multiple allocator is correct in this situation. The Board finds that the evidence supports the use of a 1 CP allocator and the Board will order that NLH use a 1 CP allocator for allocation of generation demand costs.



56. The Board finds that the use of the zero intercept method for classification of distribution system costs as proposed by NLH is an acceptable method for dividing distribution costs into demand and customer related components.
57. The Board accepts the use of a 1 CP allocator for distribution demand costs, as approved by the 1993 generic COS methodology.
58. Based on the evidence before it at this hearing the Board is not prepared to confirm the change in assignment from NLH rural to common of the generation and transmission assets on the GNP. The proposed change in the assignment of the Doyles-Port aux Basques assets from NP specifically assigned to common is also not accepted. The Board will reconsider this issue at NLH's next rate hearing. The Board will require NLH to undertake the necessary studies and analyses to support the value of the interconnection of the GNP assets to the grid, including an assessment of the impacts on system reliability and the conditions and operating scenarios under which the GNP generation would be of benefit to the operation of the Island Interconnected system. This study should also review the value of the Doyles-Port aux Basques and the Burin Peninsula systems to the grid.
59. The Board accepts NLH's proposal that the frequency converters be specifically assigned to the IC in the COS.
60. The Board accepts NLH's treatment of the generation credit for NP and the Interruptible 'B' credit for the IC.
61. The Board accepts NLH's treatment for classification of hydraulic plant as being in accordance with the 1993 generic COS methodology.
62. NLH's proposal for treatment of transformer losses is accepted.
63. The Board has already ruled in the 1993 generic COS methodology that there be a single cost of service study for the Labrador Interconnected system and is not persuaded that there is sufficient evidence to reconsider the matter at this time.
64. The Board accepts NLH's proposal and reasons to use a 1 CP allocator for generation demand costs for the Labrador Interconnected system.

## **VIII. RURAL SYSTEMS**

65. The Board will direct NLH to assume responsibility for the development of an evidentiary record involving the rural deficit. This record should involve appropriate consultation with Government and should address the magnitude of the rural subsidy, comparative practices elsewhere, as well as future funding options for the rural deficit. The record should also contain a concise statement of other public policy initiatives being implemented by NLH on behalf of Government and their associated costs. The Board will require NLH to file this evidentiary record at its next rate hearing.

66. The Board will order that the existing policy be continued of allowing NLH, as NP changes its rates, to automatically adjust the rates it charges its Island Rural Interconnected customers, its customers serviced from the L'Anse au Loup system and its Isolated Rural customers for the first 700 kWh per month of consumption, other than Government departments and agencies so that rates are the same as the rates charged by NP to its customers and to automatically change the rates charged for consumption over 700 kWh per month of electricity sold to Isolated Rural customers, other than Government departments and agencies, by the average rate of change granted to NP.
67. The Board finds preferential rates are discriminatory and will order that NLH increase rates to the Federal and Provincial Governments effective with the implementation of other rate changes arising from this decision to recover the full costs of providing this service in rural areas. Preferential rates will continue to apply to hospitals, fish plants, churches, schools, community halls, municipal buildings and like facilities currently benefiting from preferential rates. NLH's proposal is accepted to present to the Board at its next rate application a plan to phase out preferential rural rates.
68. The Board will approve the existing "*lifeline block*" of 700 kWh for both domestic and general service customers. NLH will be required to undertake a review of the existing "*lifeline block*" for domestic customers to assess its adequacy and prior to December 31<sup>st</sup>, 2002 file a report with the Board.
69. The Board accepts NLH's proposal to address at its next rate application the elimination of the "*lifeline block*" for general service customers on isolated systems. This proposal is to be appropriately coordinated with the Board's decision to implement a demand energy rate structure for this same class of customers.
70. NLH will be required to take the necessary steps required to prepare for implementation of a demand energy rate structure for general service customers on isolated systems and to file at its next rate application a proposal for such a rate structure. The implementation of this decision is to be coordinated with the elimination of the "*lifeline block*" for general service customers to be addressed by NLH at its next rate application.
71. The Board will not direct NLH to provide a refund to reflect a gradual reduction of the IC portion of the rural subsidy over the period 1996-1999.

#### **IX. RATE ISSUES/RATE DESIGN**

72. NLH's proposal to implement the Island Interconnected rate structure (six classes) for the Labrador Interconnected system will be approved.
73. NLH's proposal to phase-in a cost based rate system for the Labrador Interconnected system as of the implementation of rates that arise from this decision will be approved. NLH will be required to file a five year plan outlining further alterations in rates on the Labrador Interconnected system, with the cost recovery targets as identified in this Application to be incorporated as part of NLH's next rate application.

74. The Board recognizes NLH's efforts in this Application to minimize rate increases to its customers on the Labrador Interconnected system to a level that, in its view, would not cause "*rate shock*" by applying these guidelines in its rate design. The Board sees these guidelines as reasonable and encourages NLH to adhere to these guidelines as it redesigns its rates to be submitted to the Board as a result of this decision. If application of the guidelines, as they are, prevent the design of rates that will recover costs, the Board will support some adjustment in the parameters if required. The Board reiterates its support of keeping the level of rate increases on the Labrador Interconnected system as low as possible as NLH moves to a uniform rate structure.
75. The secondary energy rate as proposed by NLH for customers serviced from the Labrador Interconnected system will be approved.
76. The Board finds that the credit from secondary energy sales to CFB Goose Bay (5 Wing) would be more appropriately applied against the rural deficit before allocation to NP and Labrador Interconnected customers. However, because of the magnitude of this adjustment relative to the total revenue requirement on the Labrador Interconnected, together with the impact of other decisions of the Board, the Board believes that implementation of this decision would introduce rate shock for the Labrador Interconnected customers. For the 2002 test year, the credit should be applied to the Labrador Interconnected system as proposed by NLH. The Board will require NLH to include, as part of its five year rate plan to be submitted at the next rate hearing, a plan which phases in to the Labrador Interconnected customers, the impact of applying the credit for secondary energy sales to the rural deficit.
77. The Board will approve the refund of the Wabush surplus of \$2,922,755 as proposed by NLH.
78. The Board will approve the rules and regulations set out in NLH's contracts with the IC, with the exception of the proposed contract with North Atlantic Refinery Limited.
79. The Board will approve the rules and regulations set out in NLH's contract with North Atlantic Refinery Limited, but excludes Clause 9.04, which describes the liability of NLH.
80. The Board accepts NLH's methodology for calculating the wheeling rate but will require the calculation of the rate to be revised in light of the Board's decision on the assignment of the GNP costs. In the case of transmission losses, NLH will be required to use the average losses on the system for the last five years (1996-2000) calculated at 3.47%.

81. The Board finds it is not in a position at this time to make a final determination on the issue of whether an energy only rate is appropriate for purchase of power by NP from NLH. The Board has noted the positions of the parties but further evidence will be required from both NP and NLH before making a final decision. If the Electricity Policy Review currently underway does not address this issue as put before the Board at the pre-hearing conference in September 1998, the Board will address it at NLH's next general rate hearing. At that time the Board will expect NLH to file supporting evidence with its application to address the demand energy pricing issues raised in this hearing.
82. The Board believes that, in light of the many other matters which it has requested NLH to address and also the fact that the Electricity Policy Review is ongoing, it would not be timely to commence any study of marginal costs considerations at this time. The Board will continue to monitor this situation with a view to determining an opportune time to act on this initiative.
83. NLH will be required to submit revised Rules and Regulations incorporating changes to Clause 4 and Clause 10 (c) as accepted by the Board for final approval with the revised Rate Schedules to be filed.
84. In order to finalize rates to be implemented as a result of this Application, NLH will be directed to incorporate the decisions of the Board by:
  1. adjusting its revenue requirement and calculation of rate base and return on rate base;
  2. completing a revised COS study for the 2002 test year; and
  3. revising its proposed Schedule of Rates for the various customer classes based on the updated cost of service.

and filing the above with the Board for approval. The Board will review NLH's revised filing to ensure its decisions are appropriately incorporated and then issue a final Order approving or modifying, as it deems appropriate, the rate base, NLH's return on rate base and the revised rates for NLH's customers for the 2002 test year.

## **X. OTHER ISSUES**

85. The Board will approve the code of accounts submitted by NLH and will require NLH to file written policies and procedures for the accounting of all intra and inter-corporate transactions, indicating what is to be included in regulated and non-regulated activities.
86. NLH will be required to file separate financial statements for regulated and non-regulated activities. This will apply to all regulatory reporting including both quarterly and annual reports. NLH will continue to file annual consolidated statements which should be accompanied by precise reconciliation between regulated and non-regulated activities.
87. NLH will be directed to prepare a summary and index of all policies related to regulated activities and place this summary on file with the Board on or before June 30, 2003.

88. The Board will require that NLH submit a final report on the results of joint efforts to date to reduce duplication between NLH and NP. The report should identify and make recommendations concerning additional collaborative opportunities between the two utilities on eliminating duplication and expanding cooperation in the interests of electricity consumers. This report should be concluded by both utilities, if possible, and in any event should be provided to the Board no later than December 31, 2002.
89. The Board will direct NLH to review the issues raised during the hearing and file with the Board a summary report with recommendations on how NLH may reasonably improve the reliability and quality of service for customers in coastal Labrador communities.
90. The Board is persuaded that community based conservation initiatives, similar to those undertaken by the Conservation Corps of Newfoundland and Labrador, have merit in assisting consumers and reducing energy demands which, if sustained, may lower generating capacity requirements into the future. The Board believes NLH should focus attention on conservation and bring forward to the Board a multi-year plan directed to these kinds of initiatives.
91. The Board will require NLH to include, in all applications for capital expenditure programs where generation is being replaced or upgraded, a cost benefit analysis of any alternatives that may result in reduced load or a deferral of capacity expansion.
92. NLH is encouraged to integrate the Board's findings into its strategic planning process.
93. The Board will order pursuant to Section 70 of the *Act*, that NLH submit its next general rate application no later than December 31, 2003.

#### **XI HEARING COST AWARDS**

94. The Board will award costs to the IC. Upon receipt of a detailed statement of costs the Board will fix an amount. The Board's decision in this matter is solely to recognize the circumstances surrounding this Application and is not intended to set a precedent.
95. The application by the Towns of Labrador City and Wabush for costs will be denied.

**PART FOUR. THE ORDER****IT IS THEREFORE ORDERED THAT:****CAPITAL STRUCTURE**

1. NLH's debt/equity ratio in the 2002 test year of 83/17 and a short term debt/equity target rate of 80/20 is approved for use in calculating the rate of return on rate base.

**FORECASTING: PRODUCTION/FUEL COSTS**

2. The 2002 test year forecast of hydraulic production shall be 4,425 GWh.
3. The 2002 test year forecast of thermal generation shall be reduced to reflect the revised hydraulic forecast.
4. A fuel efficiency factor of 615 kWh/bbl shall be used to calculate 2002 test year fuel costs for No. 6 fuel.
5. NLH shall file with the Board:
  - i. As part of its next general rate application, an independent study of its hydraulic production forecasting methodology and the terms of reference shall be filed with the Board for approval in advance.
  - ii. On or before December 31, 2002, a statement of policies and procedures outlining a coordinated, integrated and strategic approach to fuel purchasing; as outlined in the decision of the Board.

**REVENUE REQUIREMENT – TEST YEAR 2002**

6. NLH shall calculate and file a revised total revenue requirement for the 2002 test year based on its proposals in this Application, incorporating the changes set out in this Order, which include:
  - i. Depreciation expense, adjusted to reflect NLH's 2002 Capital Budget as revised by this Order, including the elimination of the VHF Mobile Radio system project and the reduction of 7½%.
  - ii. The monthly forecast price of No. 6 fuel, as set out in Schedule 1 attached to this Order.
  - iii. Salaries and Fringe Benefits, reduced by an additional \$500,000 to reflect a higher vacancy credit.

- iv. **“Other costs”, reduced by \$2,000,000 to incorporate a productivity allowance.**
  - v. **An appropriate credit for interest collected on overdue accounts.**
  - vi. **The interest expense component of the 2002 test year return on rate base, incorporating:**
    - (a) **a reduction (calculated using the embedded cost of debt) to reflect the cost of financing the dividend in excess of NLH’s existing dividend policy; and**
    - (b) **an adjustment to reflect the reduction of 7½% to NLH’s approved 2002 capital budget for revenue requirement purposes.**
  - vii. **The return on equity component of the 2002 test year return on rate base, incorporating an adjustment to reflect the 3% return on the notional increase in equity resulting from payment of a dividend which is consistent with NLH’s existing dividend policy.**
7. **Regulated expenses for the 2002 test year and subsequent years shall exclude:**
- i. **Spousal travel;**
  - ii. **“Communication Plan” advertising; and**
  - iii. **Bay D’Espoir street lighting.**
8. **NLH shall file with the Board:**
- i. **On or before December 31, 2002, a detailed plan of projected maintenance expenditures for the Holyrood Generating Station for the period 2003-2013.**
  - ii. **On or before December 31, 2002, a statement of policies and procedures governing employee travel.**
  - iii. **On or before June 30, 2003, details of the methodology used for calculation of notional interest.**
  - iv. **On or before December 31, 2005, an updated depreciation study.**

#### **RATE STABILIZATION PLAN**

9. **NLH shall continue to utilize the RSP, incorporating the changes proposed by NLH and those set out in this Order including:**
- i. **A Cost of Service price of No. 6 fuel, as set out in Schedule 1 attached to this Order.**
  - ii. **A fuel efficiency factor of 615 kWh/bbl.**
  - iii. **A forecast hydraulic production of 4,425 GWh.**
  - iv. **The elimination of the cap on the retail portion of the RSP.**
10. **The existing balances in the RSP shall be fixed as of the end of the month prior to the effective date of rate implementation based on the current methodology, and additional recovery of this balance is not allowed in the 2002 test year.**

11. The balance in the RSP shall be recovered in the following manner:
  - i. The RSP mill rate for the IC shall be reset as of the effective date of rate implementation for the remainder of 2002 to 2.80 mills/kWh, which was the rate effective January 1, 2001.
  - ii. The RSP mill rate for 2002 for NP shall remain at 1.77 mills/kWh, which was the rate effective as of July 1, 2001.
  - iii. Recovery of the fixed balance outstanding shall be spread over a five year period commencing in 2003 using a straight-line recovery method.
  - iv. The method for calculating the mill rate adjustments and the date of the adjustments for both the IC and NP shall remain the same.
  - v. The amounts recovered shall be credited against the fixed balance of the plan.
  - vi. Interest shall be accumulated and maintained on the balance using the WACC.
  - vii. Recovery or credits of balances that accumulate in the plan after the effective date of rate implementation (the new balance) shall be calculated using a straight-line method over a two year period, to be effective January 1, 2004 for the IC and July 1, 2004 for NP.
12. NLH shall file with the Board updated 12-month fuel forecasts as part of its quarterly reports.

#### 2002 CAPITAL BUDGET

13. The capital budget projects, excluding the VHF Mobile Radio system, as listed in Schedule 2 attached to this Order, are approved, pursuant to subsection 41(3) of the *Act*.
14. The 2002 capital budget in the amount of \$36,765,000, adjusted to reflect the removal of the \$3,081,000 associated with the VHF Mobile Radio system is approved, pursuant to subsection 41(1) of the *Act*.
15. Order No. P.U. 30 (2001-2002) is hereby amended to reflect the removal of B-47 (Replace 75 kW Diesel Unit No. 252, Petites).
16. An “*Allowance for Unforeseen Events*” fund of \$1,000,000 shall replace the Contingency Fund and shall be used by NLH pursuant to the guidelines of the Board as set out in the decision which may be amended by the Board from time to time.



17. NLH shall file with the Board:
- i. Upon further application for approval of the VHF Mobile Radio system project, a full cost benefit analysis of the project.
  - ii. As part of its 2003 capital budget application, an updated Telecommunications Plan.
  - iii. In all applications for approval of capital projects where generation is being replaced or upgraded, a cost benefit analysis of alternatives that may result in reduced load or a deferral of capacity expansion, including appropriate conservation or DSM programs.
  - iv. In all applications for approval of capital budget projects under subsection 41(3) of the *Act*, documentation showing the use of a net present value methodology to evaluate projects, pursuant to the guidelines of the Board as set out in Schedule 3 attached to this Order, which may be amended by the Board from time to time.

#### RATE BASE

18. NLH shall calculate and file a revised rate base, using the approach and methodology proposed in this Application incorporating the changes set out in this Order.
19. NLH shall file with the Board, prior to its next general rate application, a study of the implications upon Cash Working Capital Allowance of the timing difference between the payment of semi-annual long term bond interest and the receipt of the funds for their payment.

#### COST OF SERVICE

20. NLH shall complete and file a revised COS study for the 2002 test year, using the COS methodology as proposed by NLH, incorporating the changes set out in this Order, which include:
- i. The allocation of generation demand costs for both the Island and Labrador Interconnected systems based upon a 1 CP allocator.
  - ii. The COS assignment of GNP assets, proposed to be assigned to common in this Application, to rural.
  - iii. The COS assignment of the Doyle's-Port aux Basques assets, proposed to be assigned to common in this Application, to NP specifically assigned.
21. NLH shall file with the Board, as part of its next general rate application, a detailed study as outlined in the decision of the Board, as to the proper COS assignment of the GNP assets, the Doyles-Port aux Basques assets and the Burin Peninsula assets.

**RURAL SYSTEMS**

22. Pursuant to section 70, the existing rate structures in respect of the rural systems are approved, except that NLH shall increase the rates it charges to the Federal and Provincial Governments effective with the implementation of rates arising from this Application, to recover the full costs of providing this service in rural areas.
23. Preferential rates shall continue to apply to hospitals, fish plants, churches, schools, community halls and municipal buildings and like facilities currently benefiting from preferential rates.
24. Pursuant to Section 70, the existing “*lifeline block*” of 700 kWh is approved for both domestic and general service customers.
25. Pursuant to Section 70, the existing policy of allowing NLH, as NP changes its rates, to automatically adjust the rates it charges its Island Rural Interconnected customers, its customers serviced from the L’Anse au Loup System and its Isolated Rural customers for the first 700 kWh per month of consumption, other than Government departments and agencies, so that the rates are the same as the rates charged by NP to its customers and to automatically change the rates charged for consumption over 700 kWh per month of electricity sold to Isolated Rural customers, other than Government departments and agencies, by the average rate of change granted to NP, is approved.
26. NLH shall file with the Board:
  - i. On or before December 31, 2002, a report in respect of the existing “*lifeline block*” for domestic isolated rural customers to assess its adequacy.
  - ii. As part of its next general rate application, a multi-year plan to phase out preferential rural rates and move to a full cost recovery rate structure.
  - iii. As part of its next general rate application, a proposal for the implementation of a demand energy rate structure for general service customers on isolated systems.
  - iv. As part of its next general rate application, a plan to eliminate the “*lifeline block*” for general service customers on isolated systems, co-ordinated with the implementation of a demand energy rate structure for these customers.
  - v. As part of its next general rate application, an evidentiary record in respect of the rural deficit which addresses the relevant issues, including those outlined by the Board in its decision.

**RATE ISSUES/RATE DESIGN**

27. NLH shall apply to the Board for approval of a revised 2002 test year rate base, return on rate base, and Schedule of Rates incorporating the changes set out in this Order.

28. The revised Schedule of Rates shall be based on the proposals of NLH in this Application incorporating the changes set out in this Order.
29. NLH shall refund the Wabush surplus in the amount of \$2,922,755, in the manner proposed.
30. NLH shall calculate the wheeling rate based upon transmission losses of 3.47%.
31. The Rules and Regulations as set out in the contracts with the industrial customers, except North Atlantic Refinery Limited, are approved.
32. The Rules and Regulations as set out in the contract with North Atlantic Refinery Limited, excluding Clause 9.04, which describes the liability of NLH, are approved.
33. NLH shall submit revised Rules and Regulations for its rural customers, incorporating the changes to Clause 4 and Clause 10 (c) set out in the decision of the Board.
34. NLH shall file with the Board, as part of its next general rate application, a five year plan outlining further alterations in rates on the Labrador Interconnected system, with the cost recovery targets as identified in this Application, including a phase in of the impact of applying the credit for secondary energy sales to CFB Goose Bay (5 Wing) to the rural deficit.

#### OTHER/GENERAL

35. NLH shall file its next general rate application, pursuant to Section 70 of the *Act*, no later than December 31, 2003.
36. Pursuant to Section 58 of the *Act*, the code of accounts submitted by NLH, is approved.
37. Pursuant to Section 68 of the *Act*, the changes in depreciation policies as proposed by NLH, including the extension of the service lives for the transmission lines affected by the Avalon upgrade program, are approved.
38. NLH shall file with the Board:
  - i. On or before September 30, 2002, a report with recommendations on how NLH may reasonably improve the reliability and quality of service for customers served in coastal Labrador communities.
  - ii. On or before December 31, 2002, a final report on the results of joint efforts to date to reduce duplication between NLH and NP.

- iii. On or before December 31, 2002, the written policies and procedures to account for all intra and inter-corporate transactions, identifying what is to be included in regulated and non-regulated activities as a normal reporting function.
- iv. On or before December 31, 2002, a multi-year plan directed towards its community-based conservation initiatives.
- v. On or before June 30, 2003, a summary and index of all policies related to regulated activities.
- vi. In all regulatory reporting, separate financial statements for regulated and non-regulated activities, including reconciliation with annual consolidated statements.

#### HEARING COSTS

- 39. The IC be awarded costs in an amount to be determined by the Board, following receipt of a detailed statement of their costs.
- 40. The application by the Towns of Labrador City and Wabush for costs is denied.
- 41. NLH shall pay the expenses of the Board arising from this Application, including the expenses of the Consumer Advocate as ordered by the Lieutenant-Governor in Council pursuant to Section 117 of the *Act*.

Dated at St. John's, Newfoundland and Labrador this 7<sup>th</sup> day of June 2002.

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Robert Noseworthy,  
Chair & Chief Executive Officer.

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Darlene Whalen, P.Eng.,  
Vice-Chairperson.

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G. Fred Saunders,  
Commissioner.

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Don Powell, C.A.,  
Commissioner.

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G. Cheryl Blundon,  
Board Secretary.

**SCHEDULE 1**

**HOLYROOD NO. 6 FUEL PRICE FORECAST  
AS FILED BY  
R. J. HENDERSON  
2<sup>nd</sup> SUPPLEMENTARY EVIDENCE**

**ORDER NO. P.U. 7 (2002-2003)**

<b>Holyrood No. 6 Fuel Price Forecast (\$Cdn/bbl)</b>	
December 2001	22.70
<b>2002</b>	
January	24.30
February	25.20
March	25.20
April	25.70
May	25.80
June	25.50
July	25.70
August	26.50
September	26.60
October	26.80
November	26.60
December	27.10
2002 Weighted Annual Average	25.91
2003	26.55
2004	26.50
2005	27.50

(2<sup>nd</sup> Supplementary Evidence, R. J. Henderson, pg. 1)



**SCHEDULE 2**

**2002 CAPITAL BUDGET PROJECTS  
APPROVED BY**

**ORDER NO. P.U. 7 (2002-2003)**

**GENERATION:**

**Install 25kV Distribution Line - Ebbegunbaeg (\$1,555,000)**

**Nature of Project**

This project involves the construction of 20km of new 25kV distribution line and associated equipment from the North Salmon Dam to interconnect the Ebbegunbaeg control structure. This structure is presently serviced through diesel generation. The distribution interconnection will permit the diesel generators and their associated infrastructure to be retired thereby avoiding future maintenance and capital costs.

**Customer Impact**

There is no direct customer impact.

**Cost Benefit Study**

A cost benefit study was completed and concluded an interconnection would have a payback period of 8 years.

**Future Commitments**

There are no future commitments, this project will be completed in 2002.

**GENERATION:**

**Install Fault Recorder - Upper Salmon Generating Station (\$127,000)**

**Nature of Project**

This project involves the installation of a digital fault recorder at the Upper Salmon Generating Station. Installation of this equipment will enable Hydro to analyze faults and generator outages in an effort to reduce downtime.

**Customer Impact**

This equipment would assist in fault analysis and trouble shooting after any major system disturbance or equipment failure and would assist in faster system restoration.

**Cost Benefit Study**

A formal cost benefit study was not required.

**Future Commitments**

There are no future commitments, this project will be completed in 2002.

**GENERATION:**

**Install Intake Stoplogs - Paradise River (\$158,000)**

**Nature of Project**

This project involves the installation of stoplogs at the Paradise River Generating Station to maintain a safe environment for proper maintenance of the intake gate, gate guides and sill.

**Customer Impact**

Failure to complete this work could result in the extended interruption of this power supply to Hydro's customers.

**Cost Benefit Study**

A formal cost benefit study was not required.

**Future Commitments**

There are no future commitments, this project will be completed in 2002.

**GENERATION:**

**Replace Control Cables - Bay d'Espoir (\$131,000)**

**Nature of Project**

This project involves the replacement of the two thirty-six (36) pair control cables between powerhouse No. 1 and Intake No. 2 and No. 4 with a fibre optic cable. The existing cables are over twenty-three years old and over the years, lightning has damaged a significant number of cable pairs.

**Customer Impact**

Any further damages to the additional cable pairs in future could result in lack of data or control function monitoring, between generating units and intake, that would affect the reliability of the units and supply of power to Hydro's customers.

**Cost Benefit Study**

A formal cost benefit study was not required.

**Future Commitments**

There are no future commitments, this project will be completed in 2002.

**GENERATION:**

**Replace Ventilation System at Powerhouse No. 1 - Bay d'Espoir (\$164,000)**

**Nature of Project**

This project involves the replacement of 12 wall mounted exhaust fans with 6 roof mounted exhaust fans to reduce the ambient air temperature in the powerhouse especially during summer operation when it reaches 34°C. Due to their location, the existing fans are very difficult to maintain and require unit outages. The high ambient air temperatures are also a concern for the continued operation and equipment performance.

**Customer Impact**

Failure to maintain a reasonable ambient air temperature in the plant could cause equipment problems resulting in forced outages which could result in the interruption of power to Hydro's customers.

**Cost Benefit Study**

A formal cost benefit study was not required.

**Future Commitments**

There are no future commitments, this project will be completed in 2002.

**GENERATION:**

**Purchase Track Machine - Cat Arm (\$177,000)**

**Nature of Project**

This project involves the purchase of an enclosed track machine that is used to transport personnel, tools and equipment to the Cat Arm site during adverse weather conditions.

**Customer Impact**

Failure to get personnel and equipment to the Cat Arm site could result in extended outages at this facility.

**Cost Benefit Study**

A formal cost benefit study was not required.

**Future Commitments**

There are no future commitments, this project will be completed in 2002.

**GENERATION:**

**Purchase and Install Continuous Emission Monitoring (\$801,000)**

**Nature of Project**

This project involves the installation of a continuous emission monitoring system on each of the three stacks at the Holyrood Generating Station.

Air emissions from the Holyrood Generating Station include particulate matter, NO<sub>x</sub>, SO<sub>x</sub> and acid aerosols. Although the emissions are below the statutory limit, a recent health risk assessment concluded that quantification of the emissions should be undertaken. A continuous emission monitoring system (CEM) will allow direct quantification. A CEM will enhance control of the combustion process and will permit management of emissions, which is currently not available.

**Customer Impact**

There is no direct customer impact.

**Cost Benefit Study**

A formal cost benefit study was not required.

**Future Commitments**

There are no future commitments, this project will be completed in 2002.



**GENERATION:**

**Purchase and Install Closed Circuit Surveillance System - Holyrood (\$152,000)**

**Nature of Project**

This project involves the purchase and installation of a closed circuit TV surveillance system at the Holyrood Plant site. The system will have cameras at the main gate, the dock and at the northwest and southeast corners of the power house with monitors installed in the guardhouse and the control room. This system will provide enhanced security for the site and will improve public safety.

**Customer Impact**

There is no direct customer impact.

**Cost Benefit Study**

A formal cost benefit study was not required.

**Future Commitments**

There are no future commitments; this project will be completed in 2002.

**GENERATION:**

**Replace Turbine Electrohydraulic Control System - Unit No. 1 - Holyrood**  
**(\$34,000; Future \$1,084,000)**

**Nature of Project**

This project involves the replacement of the obsolete Governor Control System for the Unit No. 1 Turbine at Holyrood. The improved features of the new control system will enable the unit to pick up loads when the Holyrood Plant is isolated from the power system. A similar system on Unit No. 2 was replaced in 1999.

**Customer Impact**

The new electrohydraulic control system will improve unit reliability and the supply of power to Hydro's customers.

**Cost Benefit Study**

A formal cost benefit study was not required.

**Future Commitments**

This is a two-year project. The engineering and material ordering will be completed in 2002 and the construction completed in 2003.

**TRANSMISSION:**

**Pave Parking Area - Bishop's Falls Complex (\$69,000)**

**Nature of Project**

This project involves the paving of the gravel parking lot at the Bishop's Falls Complex which is used by heavy equipment such as muskegs, line trucks, etc. The surface of the existing parking lot is difficult and costly to maintain as it is often in poor condition in the spring and during wet conditions.

**Customer Impact**

There is no direct customer impact.

**Cost Benefit Study**

A formal cost benefit study was not required.

**Future Commitments**

There are no future commitments, this project will be completed in 2002.

**TRANSMISSION:**

**Replacement of Poles - TL215 (69kV Doyles - Port aux Basques) (\$138,000)**

**Nature of Project**

This project involves the replacement of poles on the 28 km, 32-year-old 69 kV line from Doyles Terminal Station to Grand Bay Terminal Station which is primarily of single pole wood structures. A Wood Pole Inspection Program in 2000 assessed 220 poles (50%) on this line and identified twenty (20) poles requiring replacement by 2002. Four (4) structures were considered highest priority and are scheduled for replacement in 2001. The remaining sixteen (16) structures will be replaced in this capital project.

**Customer Impact**

Failure to complete this work could result in the interruption of power supply to Hydro's customers.

**Cost Benefit Study**

A formal cost benefit study was not required.

**Future Commitments**

There are no future commitments, this project will be completed in 2002.

**TRANSMISSION:**

**Purchase and Install Remote Communication Equipment - Buchans & Stony Brook**  
**(\$51,000)**

**Nature of Project**

This project involves the purchase and installation of a number of relays and associated communications equipment which store fault information at Stony Brook and Buchans Terminal Stations. Currently, personnel must travel to each station in order to retrieve this information. With the purchase and installation of proposed communications equipment, the relays can be remotely accessed. This will assist in the timely analysis of faults, and in the case of permanent faults, will provide fast access to the fault type and location.

**Customer Impact**

This project will decrease the time required to locate permanent faults and therefore decrease the outage time of the faulted equipment line.

**Cost Benefit Study**

A formal cost benefit study was not required.

**Future Commitments**

There are no future commitments; this project will be completed in 2002.

**TRANSMISSION:**

**Purchase and Install Digital Fault Recorder - Stony Brook (\$92,000)**

**Nature of Project**

This project involves the purchase and installation of a 32-channel digital fault recorder for Stony Brook Terminal Station. This recorder would record voltages, currents and other important data, before, during and after a fault. Information from this recorder will be used to assist in the analysis of faults in and around the Stony Brook area. The analysis will be used to verify the correct operation of protection and control relaying, breakers and other equipment, and whether any additional follow-up action is required.

**Customer Impact**

This project will decrease the time required to locate permanent faults and therefore decrease the outage time of the faulted equipment line.

**Cost Benefit Study**

A formal cost benefit study was not required.

**Future Commitments**

There are no future commitments; this project will be completed in 2002.

**GENERAL PROPERTIES:**

**Acquire Document Management & Imaging System (\$104,000)**

**Nature of Project**

This project involves the development of a Corporate Document Management and Imaging System . An electronic Document Management solution is required to provide the Corporation with effective control, management and access to such documents.

**Customer Impact**

There is no direct customer impact.

**Cost Benefit Study**

A formal cost benefit study was not required.

**Future Commitments**

This is the first phase of implementation and requests for the approval of additional phases will be in future submissions to PUB.

**GENERAL PROPERTIES:**

**Purchase Additional Corporate Applications (\$517,000)**

**Nature of Project**

This project involves the assessment and purchase of technical and business software. Where a business case warrants, speciality software will be purchased and implemented to address planned business processes.

Hydro must be able to address additional software requirements to support the streamlining, enhancement, and automation of business functions as required during the budget year.

**Customer Impact**

There is no direct customer impact.

**Cost Benefit Study**

A formal cost benefit study was required.

**Future Commitments**

There are no future commitments; the project will be completed in 2002.



**GENERAL PROPERTIES:**

**Purchase and Install Uninterruptable Power Supply - Computer Room (\$70,000)**

**Nature of Project**

This project involves the purchase and installation of an on-line Uninterruptable Power Supply (UPS) to the Computer Room at Hydro Place. The UPS will supply conditioned and backup power for the mainframes and servers which support the corporate financial applications and all local area network based applications.

The present configuration is inadequate to meet current needs.

**Customer Impact**

There is no direct customer impact.

**Cost Benefit Study**

A formal cost benefit study was not required.

**Future Commitments**

There are no future commitments; this project will be completed in 2002.

**GENERAL PROPERTIES:**

**Replacement of Printers (\$130,000)**

**Nature of Project**

This project involves the replacement of obsolete printers throughout Hydro offices.

**Customer Impact**

There is no direct customer impact.

**Cost Benefit Study**

A formal cost benefit study was not required.

**Future Commitments**

There are no future commitments; this project will be completed in 2002.

**2002 Capital Projects Over \$50,000 - Explanations**

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**GENERAL PROPERTIES:**

**Purchase of Existing AS400 Computers and Additional Disk Space (\$143,000)**

**Nature of Project**

This project involves the purchase of the existing AS400 computers, which are currently being leased. It also involves the purchase of additional disk space to support the corporate integrated financial applications. The five (5) year lease for the existing AS400 computers will expire during 2002.

The specific components are:	AS400 Model 640	\$	39,000
	AS400 Model 720	\$	25,000
	Misc. Associated Equip.	\$	12,000
	Additional Disk Space	\$	64,000
	Installation	\$	<u>3,000</u>
	Total	\$	143,000

**Customer Impact**

There is no direct customer impact.

**Cost Benefit Study**

A formal cost benefit study was not required.

**Future Commitments**

There are no future commitments; this project will be completed in 2002.

**Further Explanation**

This capital budget proposal replaces a previously submitted proposal for "Replacement of AS 400 Computers" for an amount of \$2,109,000. The new computers were necessary for Hydro to begin a transition from JD Edwards World Software product to JD Edwards World Vision. The reason for this transition was that support for the World Software product was to expire in 2005 and Hydro was to begin the process in 2002. This would allow timely transition to the new applications in a more orderly fashion and without needing a major human resource in a short period of time and permit minimum disruption to the current operations.

On November 13, 2001 Hydro was advised, as were all other JD Edwards World Software users, that support for the World product will be extended indefinitely. For this reason this significant expense can be delayed. Hydro will continue to assess the functionality of the JD Edwards World product and its potential advantages as well as the performance of the current hardware and may, in the future, if justification exists, propose the transition to other JD Edwards software and/or initiate a major upgrade of the existing computing platform.

The additional disk space is necessary to ensure adequate operation of current applications. Current utilization is at approximately 75% which is the maximum recommended level to ensure efficient operation of the applications.

**GENERAL PROPERTIES:**

**Replace Teleprotection - Stony Brook - Grand Falls Frequency Converter (\$58,000)**

**Nature of Project**

This project involves the replacement of the existing teleprotection units used for voice, data and teleprotection at the Stony Brook Terminal Station and the Grand Falls Frequency Converter at the Abitibi Mill in Grand Falls. The manufacturer does not support the current equipment.

**Customer Impact**

Failure to replace the teleprotection equipment may have a direct impact on the Abitibi Mill in Grand Falls.

**Cost Benefit Study**

A formal cost benefit study was not required.

**Future Commitments**

There are no future commitments; this project will be completed in 2002.

**GENERAL PROPERTIES:**

**Replace UHF Radio - Upper Salmon (\$556,000)**

**Nature of Project**

This project involves the replacement of obsolete UHF radio links from Upper Salmon Generating Station to West Salmon Spillway, North Salmon Spillway, and Ebbegunbaeg Control Structure that supports operational voice, data and control signals at these sites. The existing UHF radio equipment is 20 years old, spares are not available and the equipment is no longer supported by the manufacturer. The radio equipment will be replaced with a combination of digital radio and fibre optic technology.

**Customer Impact**

Failure to replace this equipment will have an impact on the reliability of the Upper Salmon Generating Station and this may directly impact customers.

**Cost Benefit Study**

A formal cost benefit study was not required.

**Future Commitments**

There are no future commitments; this project will be completed in 2002.

**GENERAL PROPERTIES:**

**Complete Microwave Radio System Interconnection (\$269,000; Future \$8,673,000)**

**Nature of Project:**

This project involves the purchase, installation and testing of a new digital microwave radio system to interconnect Hydro's telecommunications facilities on the west and east geographical regions of the Island. The proposed radio system will provide a high-speed teleprotection voice and data communications between the Company's generating and transmission facilities in the central, western and eastern areas of the island with the Energy Control Center located in St. John's. The system shall consist of four new radio repeater sites between the existing radio sites at Sandy Brook Hill and Bull Arm Hill.

This project is Phase 3 of Hydro's five phase Telecommunications Plan that was previously filed with the PUB in 1998.

This project is an important step in enhancing the reliability of the provincial power grid while providing an infrastructure that will meet the future telecommunication bandwidth requirements of the Company.

**Customer Impact**

Completion of this project will enhance system performance and customer reliability.

**Cost Benefit Study**

A cost benefit study was not required.

**Future Commitments**

This is a two-year project. The engineering and material ordering will be completed in 2002 and the construction will be completed in 2003.

**GENERAL PROPERTIES:**

**Provide Global Positioning System Time Synchronization - Phase 2 (\$211,000)**

**Nature of Project**

This project involves the installation of twenty-two Global Positioning System (GPS) clocks. These clocks will provide the data used in the evaluation of system performance and control systems.

**Customer Impact**

There is no direct customer impact.

**Cost Benefit Study**

A formal cost benefit study was not required.

**Future Commitments**

There are no future commitments; this project will be completed in 2002.

**GENERAL PROPERTIES:**

**Install Interactive Voice Response System - Hydro Place (\$171,000)**

**Nature of Project**

This project involves the installation of an Interactive Voice Response (IVR) system at Hydro Place to support the Customer Services Call Center. This system will provide advanced customer information retrieval capability.

**Customer Impact**

This project will improve customer service.

**Cost Benefit Study**

A formal cost benefit study was not required.

**Future Commitments**

There are no future commitments; this project will be completed in 2002.



**GENERAL PROPERTIES:**

**Replace Vehicles (\$1,897,000)**

**Nature of Project**

This project is for the replacement of 35 (thirty-five) units in the Hydro and Rural Systems which includes 6 (six) cars, 17 (seventeen) pickups and 12 (twelve) line trucks.

Hydro's policy is to operate its vehicles in a manner which minimizes new investment, and operating and maintenance costs. Vehicles are assessed on an annual basis for replacement taking into account the overall condition of each vehicle and its distance driven, as well as history of maintenance costs.

**Customer Impact**

There is no direct customer impact.

**Cost Benefit Study**

A formal cost benefit study was not required.

**Future Commitments**

There are no future commitments; this project will be completed in 2002.

**SCHEDULE 3**

**GUIDELINES AND CONDITIONS  
FOR FILING OF  
FUTURE CAPITAL BUDGET APPLICATIONS  
IN ACCORDANCE WITH  
ORDER NO. P.U. 7 (2002-2003)**

NLH shall file future capital budget applications in according with the following guidelines and conditions as outlined in Order No. P.U. 7 (2002-2003):

- i) A concise description of the project, including classification and location.
- ii) The projected cost of the project in the current year (year of budget).
- iii) The anticipated future expenditures; shown by year, of the project.
- iv) The current age of any plant being replaced or overhauled.
- v) The measurable usage to date of any plant being replaced or overhauled.
- vi) The date and cost of the most recent overhaul, repair, or replacement.
- vii) Copies of any engineering studies, consultants' reports, environmental studies, or dealer documentation outlining the current condition and future requirements of the plant. If these documents are already on file with the Board, reference may be made to these documents
- viii) A cost benefit analysis of all alternatives, both internal and external, that have been considered, including any DSM measures that have been evaluated.
- ix) A description and related documentation outlining the results of any discussions of the project that have taken place between the utilities in an effort to reduce expenditures by avoiding duplication of services, or increased sharing of resources and expenses.
- x) Documentation of any safety or reliability issues that have arisen, in this jurisdiction or elsewhere, indicating a need for the project at the time. (Describe any efforts that have already been made to deal with these issues, and outline any related costs that have been incurred.)
- xi) Documentation, including maintenance records and reports of outages, that indicate whether this project is remedial or preventative, and that support the current undertaking of the project.
- xii) A general description of any major replacements, upgrades, or repairs to this plant that are expected to be undertaken within the next three years.



*Newfoundland & Labrador*

**BOARD OF COMMISSIONERS OF PUBLIC UTILITIES**  
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