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APPLICATION



An application to the Board of Commissioners of Public Utilities

Proposed Power Rates
To be charged by
Newfoundland & Labrador Hydro
To
Newfoundland Power,
Island Industrial Customers and
Rural Customers

May 2001



IN THE MATTER OF the *Public Utilities Act*, (R.S.N. 1990, Chapter P-47 (the "Act"))

AND

IN THE MATTER OF an Application by Newfoundland and Labrador Hydro for approvals 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.

NEWFOUNDLAND AND LABRADOR HYDRO

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Application

IN THE MATTER OF the *Public Utilities Act*, (R.S.N. 1990, Chapter P-47 (the “Act”))

AND

IN THE MATTER OF an Application by Newfoundland and Labrador Hydro for approvals 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.

TO: The Board of Commissioners of Public Utilities (the “Board”)

THE APPLICATION of Newfoundland and Labrador Hydro (the “Applicant”)

STATES that: -

1. The Applicant is a corporation continued and existing under the Hydro Corporation Act, is a public utility within the meaning of the Act and is subject to the provisions of the *Electrical Power Control Act, 1994* (“EPCA, 1994”).
2. The last referral by the Applicant to the Board with respect to rates charged Newfoundland Power (“NP”) and Rural Customers took place in 1991 under *The Electrical Power Control Act* (“EPCA”) and, subsequently, the Board in its Report dated April 13, 1992 (the 1992 Report) recommended that the rate to be charged

by the Applicant to its Retail Customer, NP continue to be 45.31 mills/kWh. The Board made a number of other recommendations, as set out in its 1992 Report, including recommendations on policies regarding rates for Rural Customers, and financial targets for the Applicant. As well, the Board recommended that the Applicant's cost of service methodology be further examined.

3. The recommendations set out in the 1992 Report were accepted by the Lieutenant-Governor in Council pursuant to the EPCA, except those with respect to rates charged Isolated Rural Customers for consumption in excess of 700 kWh per month and preferential rates charged to certain Rural Customers.
4. On June 26, 1992, the Applicant referred to the Board its proposed cost of service methodology and, subsequently, the Board in its report dated February, 1993 (the "1993 Report") made a number of recommendations concerning the cost of service methodology, including that the recommended methodology be used by the Applicant at its next rate application, which is this current Application. These recommendations were accepted by the Lieutenant-Governor in Council.
5. Since the 1992 Report, the Board has issued two reports concerning the rates the Applicant charges its Rural Customers. The first report dated October 10, 1995 (the "1995 Report") was written in response to a reference dated April 27, 1993 by the Lieutenant-Governor in Council to the Board under Section 12 of the EPCA. On July 29, 1996 the Board issued a revised report (the "1996 Report") which contains a number of recommendations on the policies to be used in setting rates charged Rural Customers.
6. On January 19, 1996 amendments to the *Hydro Corporation Act* and the EPCA, 1994 became effective which made the Applicant fully subject to the jurisdiction of the Board.

7. On January 31, 1996, the Lieutenant-Governor in Council, under Section 5 of the EPCA, 1994, referred to the Board the issue of the rates to be paid by rural customers in the area from L'Anse au Clair to Red Bay (the "L'Anse au Loup System") upon the completion of the transmission line connecting this area with the Lac Robertson hydro-electric project in Quebec. The Board in its report, dated July 12, 1996, which was accepted by the Lieutenant-Governor in Council, recommended, that the rates to be charged these customers be the rates charged by the Applicant to Rural Island Interconnected Customers.
8. By Order No. P.U. 12 (1996-97), dated March 4, 1997, the Board ordered that the rates charged NP and Rural Customers be adjusted to reflect savings arising from the implementation of the Value Added Tax. By Order No. P.U. 20 (1997-98) dated March 5, 1998, the Board ordered that rates charged Island Industrial Customers be adjusted to reflect savings arising from the implementation of Harmonized Sales Tax.
9. On November 19, 1999, the Applicant applied to the Board for an interim order to reduce the rates charged its Industrial Customers to reflect the requirement in the EPCA, 1994, to eliminate from their rates their portion of the subsidy associated with serving Rural Customers. Order No. P.U. 23 (1999-2000) issued by the Board approved interim rates for Industrial Customers until November 30, 2000 and subsequently by Order No. P.U. 25 (2000-2001), the Board extended the interim rates approved by Order No. P.U. 23 (1999-2000) until December 31, 2001 and made a number of other recommendations, including that the industrial rates would be finalized pursuant to a hearing based upon a general rate application to be filed by the Applicant in May, 2001.
10. On December 18, 2000 the Board issued Order No. P.U. 31 (2000-2001) approving the Applicant's 2001 Capital Budget.

11. The Rate Stabilization Plan (“RSP”) was implemented in 1986 following the Board’s Report dated August 6, 1985 which accepted the RSP as proposed by the Applicant with certain modifications. One of the provisions of the RSP is that the Applicant is required to initiate an application before the Board if the net balance in the RSP, applicable to retailers, reaches \$50 million, either positive or negative (the “RSP cap”).
12. In an Interim Report dated November 10, 1988 the Board recommended rates for customers in Wabush effective January 1, 1989 and further stated that if a surplus were achieved in Wabush, it was to be refunded to customers (the “Wabush surplus”). The Applicant proposes that this issue be addressed in the Application as further explained in the evidence filed with this Application.
13. In order to maintain a sound financial position and to comply with the requirements set out in the Act and the EPCA, 1994, the Applicant proposes to alter the rates charged to its retail customer, NP, its Rural Customers and its Industrial Customers, as of January 1, 2002.
14. The Applicant proposes:
 - (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 attached hereto;
- (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%

And that for the interim for this Application, the Board allow an ROE of 3%, which results in a Return on Rate Base of 7.4%;

- (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 estimated 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.

15. The Applicant proposes, at this time, to provide evidence from three expert witnesses: Kathleen McShane, Douglas Hall and John Brickhill. Their areas of expertise and their qualifications are set out in the Evidence filed with this Application.
16. Communications with respect to this Application should be forwarded to Counsel for the Applicant, Maureen P. Greene, Q.C., Vice-President Human Resources, General Counsel & Corporate Secretary, Newfoundland and Labrador Hydro, P.O. Box 12400, St. John's, Newfoundland, A1B 4K7, phone 737-1465.

The Applicant requests that the Board make an Order as follows:

- (1) fixing and determining the 2002 rate base of the Applicant at \$1,370,471,000;
- (2) determining a just and reasonable rate of return for 2002 on average rate base of 7.4%;
- (3) Approving, pursuant to Section 70 of the Act, the rate of 48.0 mills/kWh to be charged NP;
- (4) Increasing the RSP cap for NP to \$100 million;
- (5) Approving, pursuant to Section 70 of the Act, the rate of \$7.01 per kW per month demand charge and an energy charge of 23.09 mills per kWh to be charged Island Industrial Customers for firm power and energy, plus the annual specifically assigned charge as follows:

Abitibi-Consolidated Inc. (Grand Falls)	\$ 107,549
Abitibi-Consolidated Inc. (Stephenville)	83,691
Corner Brook Pulp and Paper Limited	73,444
North Atlantic Refining Limited	154,097

- (6) Approving, pursuant to Section 70 of the Act, the rate for non-firm service to Industrial Customers as set out in Schedule A, p. 3 to this Application;
- (7) Approving, pursuant to Section 70 of the Act, the rate of 6.95 mills per kWh as a wheeling fee to be charged Abitibi-Consolidated Inc. as set out in Schedule A, p. 4 to this Application;
- (8) Approving, pursuant to Section 70 of the Act, the firming up charge of 8.76 mills per kWh for secondary energy supplied by Corner Brook Pulp and Paper Limited to the Applicant and delivered as firm power and energy to NP;
- (9) Approving, pursuant to Section 70 of the Act, the continuation of the existing policy for setting rates charged Island Interconnected Rural and L'Anse au Loup System Customers;
- (10) Approving, pursuant to Section 70 of the Act, the continuation of the existing policy for setting the rates charged Isolated Rural System Customers, with the exception of Government Departments and Agencies;
- (11) Approving, pursuant to Section 70 of the Act, the rates for Government Departments and Agencies as set out in Schedule A, pp. 10-12 to this Application;

- (12) Approving the rates for street and area lighting in Rural Isolated and Rural Interconnected Systems set out in Schedule A, pp. 8-9 to this Application;
- (13) Approving, pursuant to Section 70 of the Act, the rates for Labrador Interconnected System Customers as set out in Schedule A, pp. 13-27 to this Application;
- (14) Approving, pursuant to Section 70 of the Act, the Rules and Regulations applicable to providing service to Rural Customers as set out in Schedule B to this Application;
- (15) Approving, pursuant to Section 71 of the Act, the contracts with Industrial Customers as set out in Schedule C to this Application;
- (16) Approving, pursuant to Section 41 (3) (a) of the Act, the construction or purchase of improvements in Section A of the 2002 Capital Budget as set out in Schedule D to this Application;
- (17) Approving pursuant to Section 41 (3) (b) of the Act, the leases for 2002 as set out in Section D of the 2002 Capital Budget as set out in Schedule D to this Application;
- (18) Approving the changes proposed in the Applicant's depreciation policies;
- (19) Determining the disposition of the Wabush surplus;
- (20) Consolidating this Application with the Application relating to Industrial Rates in which Order No. P.U. 25 (2000-2001) was issued; and

- (21) Granting such alternative, additional or further relief as the Board shall consider fit and proper in the circumstances.

DATED at St. John's, Newfoundland this 31st day of May 2001.

NEWFOUNDLAND AND LABRADOR HYDRO

William E. Wells
President and Chief Executive Officer
Newfoundland and Labrador Hydro
Hydro Place, Columbus Drive
P.O. Box 12400
St. John's, Newfoundland
A1B 4K7

IN THE MATTER OF the *Public Utilities Act*, (R.S.N. 1990, Chapter P-47 (the "Act");

AND

IN THE MATTER OF an Application by Newfoundland and Labrador Hydro for approvals 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.

AFFIDAVIT

I, William E. Wells of St. John's in the Province of Newfoundland, make oath and say as follows:

1. I am President and Chief Executive Officer of Newfoundland and Labrador Hydro, the Applicant named in the attached Application.
2. To the best of my knowledge, information and belief, all matters, facts and things set out in the attached Application are true.

SWORN at St. John's in the)
Province of Newfoundland)
this 31st day of May, 2001,)
before me:)

Barrister

William E. Wells

Rate Schedules

NEWFOUNDLAND AND LABRADOR HYDRO
UTILITY

Availability:

Newfoundland Power

Rate:

Base Rate* @ 4.800 ¢ per kWh

Firming-up Charge:

To be applied to secondary energy supplied by Corner Brook Pulp and Paper Limited.

Firming-Up Charge* @ 0.876 ¢ per kWh

*Subject to RSP Adjustment:

RSP Adjustment refers to the Hydro Annual Rate Stabilization Plan Adjustment which levelizes variations in hydraulic production, fuel cost, load and rural rates.

Adjustment for Losses:

If the metering point is on the load side of the transformer, either owned by the customer or specifically assigned to the customer, an adjustment for losses as determined in consultation with the customer prior to January 31 of each year, shall be applied.

General:

This rate schedule does not include the Harmonized Sales Tax (HST) which applies to electricity bills.

NEWFOUNDLAND AND LABRADOR HYDRO
INDUSTRIAL -FIRM

Availability:

Any person purchasing power, other than a retailer, supplied from the Interconnected Island bulk transmission grid at voltages of 66 kV or greater on the primary side of any transformation equipment directly supplying the person and who has entered into a contract with Hydro for the purchase of firm power and energy.

Rate:

Demand Charge:

The rate for Firm Power, as defined and set out in the Industrial Service Agreements, shall be \$7.01 per month per kilowatt of billing demand.

Firm Energy Charge:

Base Rate* @ 2.309 ¢ per kWh

*Subject to RSP Adjustment:

RSP Adjustment refers to the Hydro Annual Rate Stabilization Plan Adjustment which levelizes variations in hydraulic production, fuel cost, load and rural rates.

Specifically Assigned Charges:

The table below contains the additional specifically assigned charges for customer plant in service that is specifically assigned to the Customer.

	Annual Amount
Abitibi-Consolidated Inc. (Grand Falls)	\$ 107,549
Abitibi-Consolidated Inc. (Stephenville)	\$ 83,691
Corner Brook Pulp and Paper Limited	\$ 73,444
North Atlantic Refining Limited	\$ 154,097

Adjustment for Losses:

If the metering point is on the load side of the transformer, either owned by the customer or specifically assigned to the customer, an adjustment for losses as determined in consultation with the customer prior to January 31 of each year, shall be applied.

General:

Details regarding the conditions of Service are outlined in the Industrial Service Agreements. This rate schedule does not include the Harmonized Sales Tax (HST) which applies to electricity bills.

NEWFOUNDLAND AND LABRADOR HYDRO
INDUSTRIAL – NON-FIRM

Availability:

Any person purchasing power, other than a retailer, supplied from the Interconnected Island bulk transmission grid at voltages of 66 kV or greater on the primary side of any transformation equipment directly supplying the person and who has entered into a contract with Hydro for the purchase of firm power and energy.

Rate:

Non-Firm Demand Charge:

The rate for Non-Firm Power, as defined and set out in the Industrial Service Agreements, shall be \$1.50 per month per kilowatt of billing demand.

Non-Firm Energy Charge (¢ per kWh):

Non-Firm Energy is deemed to be supplied from thermal sources. The following formula shall apply to calculate the Non-Firm Energy rate:

$$\{(A \div B) \times (1 + C)\} \times 100$$

- A = the monthly average cost of fuel per barrel for the energy source in the current month or, in the month the source was last used
- B = the conversion factor for the source used (kWh/bbl)
- C = the administrative and variable operating and maintenance charge (10%)

The energy sources and associated conversion factors are:

1. Holyrood, using No. 6 fuel with a conversion factor of 610 kWh/bbl
2. Gas turbines using No. 2 fuel with a conversion factor of 475 kWh/bbl
3. Diesels using No. 2 fuel with a conversion factor of 556 kWh/bbl.

Adjustment for Losses:

If the metering point is on the load side of the transformer, either owned by the customer or specifically assigned to the customer, an adjustment for losses as determined in consultation with the customer prior to January 31 of each year, shall be applied.

General:

Details regarding the conditions of Service are outlined in the Industrial Service Agreements. **This rate schedule does not include the Harmonized Sales Tax (HST) which applies to electricity bills.**

NEWFOUNDLAND AND LABRADOR HYDRO
INDUSTRIAL - WHEELING

Availability:

Any person purchasing power, other than a retailer, supplied from the Interconnected Island bulk transmission grid at voltages of 66 kV or greater on the primary side of any transformation equipment directly supplying the person and who has entered into a contract with Hydro for the purchase of firm power and energy and whose Industrial Service Agreement so provides.

Rate:

Energy Charge:

All kWh (Net of losses)* @ 0.695 ¢ per kWh

* For the purpose of this Rate, losses shall be 4%, the average system losses on the Island Interconnected Grid rounded off to the nearest whole percentage point.

General:

Details regarding the conditions of Service are outlined in the Industrial Service Agreements. This rate schedule does not include the Harmonized Sales Tax (HST) which applies to electricity bills.

NEWFOUNDLAND AND LABRADOR HYDRO
RATE STABILIZATION PLAN

The Rate Stabilization Plan of Newfoundland and Labrador Hydro (Hydro) is established for Hydro's Utility (Newfoundland Power) and Island Industrial customers to smooth rate impacts for variations between actual results and Test Year Cost of Service estimates for:

- hydraulic production;
- No. 6 fuel cost used at Hydro's Holyrood generating station;
- customer load (Utility and Island Industrial); and
- rural rates.

The formulae used to calculate the Plan's activity are outlined below. Positive values denote amounts owing from customers to Hydro whereas negative values denote amounts owing from Hydro to customers.

Section A: Components

1. Hydraulic Production Variations

Actual monthly production is compared with the Test Year Cost of Service Study in accordance with the following formula:

$$\{(A - B) \div C\} \times D$$

Where:

- A = Test Year Cost of Service Net Hydraulic Production (kWh)
- B = Actual Net Hydraulic Production (kWh)
- C = Test Year Cost of Service Holyrood Net Conversion Factor (kWh /bbl.)
- D = Monthly Test Year Cost of Service No. 6 Fuel Cost (\$/bbl.)

2. Load Variation

2.1 Fuel Component

To determine the fuel variation, actual monthly Utility Firm and Industrial Firm sales are compared with the Test Year Cost of Service Study in accordance with the following formula:

$$\{(E - F) \times (D \div C)\}$$

Where:

- E = Actual Sales (kWh)
- F = Test Year Cost of Service Sales (kWh)
- C = Test Year Cost of Service Holyrood Net Conversion Factor (kWh /bbl.)
- D = Test Year Monthly Cost of Service No. 6 Fuel Cost (\$/bbl.)

NEWFOUNDLAND AND LABRADOR HYDRO
RATE STABILIZATION PLAN (continued)

2.1 Revenue Component

To determine the revenue variation, actual monthly sales for Utility Firm and Firmed-Up Secondary energy and Island Industrial Firm energy are compared with the Test Year Cost of Service Study in accordance with the following formula:

$$(F - E) \times G$$

Where:

E = Actual Sales (kWh)

F = Test Year Cost of Service Sales (kWh)

G = Energy rate or Firming-Up charge (\$/kWh)

3. Fuel Cost Variations

This is based on the consumption of No. 6 Fuel at the Holyrood Generation Station:

$$(H - D) \times I$$

Where:

D = Monthly Test Year Cost of Service No. 6 Fuel Cost (\$/bbl.)

H = Monthly Actual Average No. 6 Fuel Cost (\$/bbl.)

I = Monthly Actual Quantity of No. 6 Fuel consumed for firm sales (bbl.)

4. Rural Rate Alteration

This component is calculated for Hydro's rural customers whose rates are directly or indirectly impacted by Newfoundland Power's rate changes, with the following formula:

$$(J - K) \times L$$

Where:

J = Cost of Service rate ¹

K = Existing rate

L = Actual Units (kWh, bills, billing demand)

¹ Hydro's schedule of rates for its rural customers impacted by Newfoundland Power's rate changes as a result of the pass-through of Hydro's rate changes associated with the Test Year Cost of Service Study.

NEWFOUNDLAND AND LABRADOR HYDRO
RATE STABILIZATION PLAN (continued)

Section B: Monthly Customer Allocation

Hydraulic, Load and Fuel Activity

Each month, the revenue component of the load variation will be assigned to the customer class for which the load variation occurred.

Each month, the year-to-date totals for hydraulic variation, fuel price variation and the fuel component of the load variation will be allocated among the Island Interconnected customer groups of (1) Newfoundland Power; (2) Island Industrial Firm; and (3) Rural Island Interconnected. The allocation will be based on percentages derived from 12 months-to-date kWh for: Utility Firm and Firmed-Up Secondary invoiced energy, Industrial Firm invoiced energy, and Rural Island Interconnected bulk transmission energy.

The year-to-date portion of hydraulic variation, fuel price variation and the fuel component of the load variation which is initially allocated to Rural Island Interconnected will be re-allocated between Newfoundland Power and regulated Labrador Interconnected customers in the same proportion which the Rural Deficit was shared in the approved Test Year Cost of Service Study.

The current month's activity for Newfoundland Power, Island Industrials and regulated Labrador Interconnected customers will be calculated by subtracting year-to-date activity for the prior month from year-to-date activity for the current month. The current month's activity allocated to regulated Labrador Interconnected customers will be removed from the Plan and written off to Hydro's net income (loss).

Rural Rate Alteration Activity

Each month, the rural rate alteration will be allocated between Newfoundland Power and regulated Labrador Interconnected customers in the same proportion which the Rural Deficit was shared in the approved Test Year Cost of Service Study. The portion allocated to regulated Labrador Interconnected will be removed from the Plan and written off to Hydro's net income (loss).

Section C: Adjustment

One-third of the amount owing from or to Newfoundland Power at December 31, will be recovered or paid over the 12-month period commencing the following July 1 through an adjustment in the energy rates charged to Newfoundland Power. The adjustment in cents per kWh is calculated by dividing total energy sales (firm and firmed-up secondary) to Newfoundland Power, in the 12 months ended December 31, into the one-third portion to be recovered from or paid to Newfoundland Power over the 12 months beginning the following July.

One-third of the amount owing from or to Industrial customers at September 30, will be recovered or paid over the 12-month period commencing the following January 1, through an adjustment in the firm energy rate for Industrial customers. The adjustment in cents per kWh is calculated by dividing firm energy sales to Industrial customers, in the 12 months ended September 30, into the one-third portion to be recovered from or paid to Industrial customers over the 12 months beginning the following January.

Section D: Financing Charges

Financing charges on the plan balance are calculated monthly using Hydro's annual weighted average cost of capital.

NEWFOUNDLAND AND LABRADOR HYDRO

RATE No. 4.1

STREET AND AREA LIGHTING SERVICE

Availability:

For Street and Area Lighting Service in the Rural Island Interconnected area and the L'Anse au Loup system, where the electricity is supplied by Hydro and all fixtures, wiring and controls are provided, owned and maintained by Hydro.

Monthly Rate: (Including Municipal Tax and Rate Stabilization Adjustment)

	SENTINEL / STANDARD
MERCURY VAPOUR	
250W (9,400 lumens)	\$16.15
HIGH PRESSURE SODIUM ¹	
100W (8,600 lumens)	13.19
150W (14,400 lumens)	16.15
250W (23,200 lumens)	21.23
400W (45,000 lumens)	28.00

¹ For all new installations and replacements.

Special poles used exclusively for lighting service

Wood.....\$ 6.06

General:

Details regarding conditions of service are provided in the Rules and Regulations.
This rate schedule does not include the Harmonized Sales Tax (HST) which applies to electricity bills.

**RATES DISPLAYED ARE FOR ILLUSTRATIVE PURPOSES ONLY.
FINAL RATES WILL RESULT FROM THE PASS-THROUGH OF HYDRO'S RATE
CHANGES ASSOCIATED WITH THE TEST YEAR COST OF SERVICE STUDY.**

NEWFOUNDLAND AND LABRADOR HYDRO
RATE No. 4.1D
STREET AND AREA LIGHTING SERVICE DIESEL

Availability:

For Street and Area Lighting Service (excluding Government Departments and Agencies) throughout the Island and Labrador diesel service areas of Hydro, where the electricity is supplied by Hydro and all fixtures, wiring and controls are provided, owned and maintained by Hydro.

Monthly Rate: (Including Municipal Tax and Rate Stabilization Adjustment)

	SENTINEL / STANDARD
MERCURY VAPOUR	
250W (9,400 lumens)	\$16.15
HIGH PRESSURE SODIUM ¹	
100W (8,600 lumens)	13.19
150W (14,400 lumens)	16.15
250W (23,200 lumens)	21.23
400W (45,000 lumens)	28.00

¹ For all new installations and replacements.

Special poles used exclusively for lighting service

Wood.....\$ 6.06

General:

Details regarding conditions of service are provided in the Rules and Regulations.
This rate schedule does not include the Harmonized Sales Tax (HST) which applies to electricity bills.

**RATES DISPLAYED ARE FOR ILLUSTRATIVE PURPOSES ONLY.
FINAL RATES WILL RESULT FROM THE PASS-THROUGH OF HYDRO'S RATE
CHANGES ASSOCIATED WITH THE TEST YEAR COST OF SERVICE STUDY.**

NEWFOUNDLAND AND LABRADOR HYDRO

RATE No. 1.2G

DOMESTIC DIESEL – GOVERNMENT DEPARTMENTS AND AGENCIES

Availability:

For Service to Government Departments and Agencies throughout the Island and Labrador diesel service areas of Hydro, to a Domestic Unit or to buildings or facilities which are on the same Serviced premises as a Domestic Unit and used by the same Customer exclusively for domestic or household purposes, whether such buildings or facilities are included on the same meter as the Domestic Unit or metered separately.

Rate:

Basic Customer Charge..... \$19.57 per month

Energy Charge:

First 700 kilowatt-hours per month.....@ 8.124 ¢ per kWh

Next 300 kilowatt-hours per month@ 11.485 ¢ per kWh

All kWh over 1000 kilowatt-hours per month.....@ 15.570 ¢ per kWh

Minimum Monthly Charge.....\$19.57

Discount:

A discount of 1.5% of the amount of the current month's bill, but not less than \$1.00, will be allowed if the bill is paid within 10 days after it is issued.

General:

Details regarding conditions of service are provided in the Rules and Regulations.

This rate schedule does not include the Harmonized Sales Tax (HST) which applies to electricity bills.

NEWFOUNDLAND AND LABRADOR HYDRO

RATE No. 2.5G

GENERAL SERVICE DIESEL – GOVERNMENT DEPARTMENTS AND AGENCIES

Availability:

For Service (excluding Domestic Service) to Government Departments and Agencies throughout the Island and Labrador diesel service areas of Hydro.

Rate:

Basic Customer Charge..... \$22.28 per month

Energy Charge:

First 700 kilowatt-hours per month.....@ 10.624 ¢ per kWh

All kWh over 700 kilowatt-hours per month.....@ 23.364 ¢ per kWh

Minimum Monthly Charge.....\$22.28

Discount:

A discount of 1.5% of the amount of the current month's bill, but not less than \$1.00 or more than \$500.00, will be allowed if the bill is paid within 10 days after it is issued.

General:

Details regarding conditions of service are provided in the Rules and Regulations.

This rate schedule does not include the Harmonized Sales Tax (HST), which applies to electricity bills.

NEWFOUNDLAND AND LABRADOR HYDRO
RATE No. 4.1G
STREET AND AREA LIGHTING SERVICE DIESEL –
GOVERNMENT DEPARTMENTS AND AGENCIES

Availability:

For Street and Area Lighting Service to Government Departments and Agencies throughout the Island and Labrador Diesel service areas of Hydro, where the electricity is supplied by Hydro and all fixtures, wiring and controls are provided, owned and maintained by Hydro.

Monthly Rate:

	SENTINEL / STANDARD
MERCURY VAPOUR	
250W (9,400 lumens)	\$19.38
HIGH PRESSURE SODIUM ¹	
100W (8,600 lumens)	15.83
150W (14,400 lumens)	19.38
250W (23,200 lumens)	25.48
400W (45,000 lumens)	33.60

¹ For all new installations and replacements.

Special poles used exclusively for lighting service

Wood.....\$ 7.27

General:

Details regarding conditions of service are provided in the Rules and Regulations.
This rate schedule does not include the Harmonized Sales Tax (HST), which applies to electricity bills.

NEWFOUNDLAND AND LABRADOR HYDRO

RATE No. 1.1H

DOMESTIC

Availability:

For Service throughout the Happy Valley-Goose Bay Interconnected service area of Hydro, to a Domestic Unit or to buildings or facilities which are on the same Serviced Premises as a Domestic Unit and used by the same Customer exclusively for domestic or household purposes, whether such buildings or facilities are included on the same meter as the Domestic Unit or metered separately.

Rate:

Basic Customer Charge:..... \$7.00 per month

Energy Charge:

All kilowatt-hours@ 3.19 ¢ per kWh

Minimum Monthly Charge.....\$7.00

Discount:

A discount of 1.5% of the amount of the current month's bill, but not less than \$1.00, will be allowed if the bill is paid within 10 days after it is issued.

General:

Details regarding conditions of service are provided in the Rules and Regulations.
This rate schedule does not include the Harmonized Sales Tax (HST) which applies to electricity bills.

NEWFOUNDLAND AND LABRADOR HYDRO

RATE No. 2.1H

GENERAL SERVICE 0 - 10 kW

Availability:

For Service (excluding Domestic Service) throughout the Happy Valley-Goose Bay Interconnected service area of Hydro, where the maximum demand occurring in the 12 months ending with the current month is less than 10 kilowatts.

Rate:

Basic Customer Charge:..... \$9.10 per month

Energy Charge:

All kilowatt-hours@ 3.22 ¢ per kWh

Minimum Monthly Charge: Single Phase.....\$9.10

Three Phase\$20.00

Discount:

A discount of 1.5% of the amount of the current month's bill, but not less than \$1.00, will be allowed if the bill is paid within 10 days after it is issued.

General:

Details regarding conditions of service are provided in the Rules and Regulations.

This rate schedule does not include the Harmonized Sales Tax (HST) which applies to electricity bills.

NEWFOUNDLAND AND LABRADOR HYDRO

RATE No. 2.2H

GENERAL SERVICE 10 - 100 kW (110 kVa)

Availability:

For Service (excluding Domestic Service) throughout the Happy Valley-Goose Bay Interconnected service area of Hydro, where the maximum demand occurring in the 12 months ending with the current month is 10 kilowatts or greater but less than 100 kilowatts (110 kilovolt-amperes).

Rate:

Demand Charge:

The maximum demand registered on the meter in the current month.....@ \$2.00 per kW

Energy Charge:

All kilowatt-hours@ 2.00 ¢ per kWh

Maximum Monthly Charge:

The Maximum Monthly Charge shall be 6.8 ¢ per kWh, but not less than the Minimum Monthly Charge.

Minimum Monthly Charge:

An amount equal to \$1.05 per kW of maximum demand occurring in the 12 months ending with the current month, but not less than \$20.00 for a three phase service.

Discount:

A discount of 1.5% of the amount of the current month's bill, but not less than \$1.00, will be allowed if the bill is paid within 10 days after it is issued.

General:

Details regarding metering [in particular Regulation 7 (n)], transformation [in particular Regulation 9(k)], and other conditions of service are provided in the Rules and Regulations. This rate schedule does not include the Harmonized Sales Tax (HST) which applies to electricity bills.

NEWFOUNDLAND AND LABRADOR HYDRO

RATE No. 2.3H

GENERAL SERVICE 110 kVa (100 kW) - 1000 kVa

Availability:

For Service (excluding Domestic Service) throughout the Happy Valley-Goose Bay Interconnected service area of Hydro, where the maximum demand occurring in the 12 months ending with the current month is 110 kilovolt-amperes (100 kilowatts) or greater but less than 1000 kilovolt-amperes.

Rate:

Demand Charge:

The maximum demand registered on the meter in the current month.....@ \$1.75 per kVa

Energy Charge:

All kilowatt-hours@ 1.90 ¢ per kWh

Maximum Monthly Charge:

The Maximum Monthly Charge shall be 6.8 ¢ per kWh, but not less than the Minimum Monthly Charge.

Minimum Monthly Charge:

An amount equal to \$1.05 per kVA of maximum demand occurring in the 12 months ending with the current month.

Discount:

A discount of 1.5% of the amount of the current month's bill, up to a maximum of \$500.00, will be allowed if the bill is paid within 10 days after it is issued.

General:

Details regarding metering [in particular Regulation 7 (n)], transformation [in particular Regulation 9(k)], and other conditions of service are provided in the Rules and Regulations. **This rate schedule does not include the Harmonized Sales Tax (HST) which applies to electricity bills.**

NEWFOUNDLAND AND LABRADOR HYDRO

RATE No. 2.4H

GENERAL SERVICE 1000 kVa AND OVER

Availability:

For Service (excluding Domestic Service) throughout the Happy Valley-Goose Bay Interconnected service area of Hydro, where the maximum demand occurring in the 12 month period ending with the current month is 1000 kilovolt-amperes or greater.

Rate:

Billing Demand Charge:

The maximum demand registered on the meter in the current month.....@ \$1.50 per kVa

Energy Charge:

All kilowatt-hours@ 1.80 ¢ per kWh

Maximum Monthly Charge:

The Maximum Monthly Charge shall be 6.8 ¢ per kWh, but not less than the Minimum Monthly Charge.

Minimum Monthly Charge:

An amount equal to \$1.05 per kVA of maximum demand occurring in the 12 months ending with the current month.

Discount:

A discount of 1.5% of the amount of the current month's bill, up to a maximum of \$500.00, will be allowed if the bill is paid within 10 days after it is issued.

General:

Details regarding metering [in particular Regulation 7 (n)], transformation [in particular Regulation 9(k)], and other conditions of service are provided in the Rules and Regulations. This rate schedule does not include the Harmonized Sales Tax (HST) which applies to electricity bills.

NEWFOUNDLAND AND LABRADOR HYDRO

RATE No. 3.1H

SECONDARY ENERGY

Availability:

For Service to Customers on the Labrador Interconnected grid engaged in fuel switching who purchase a minimum of 1 MW load and a maximum of 24 MW, who provide their own transformer and, who are delivered power at primary voltages. Hydro shall supply Secondary Energy to the Customer at such times and to the extent that Hydro has Churchill Falls electricity available in excess of the amount it requires for its own use, and to meet its commitments and sales opportunities, present and future, for firm energy. Moreover, Hydro may interrupt or reduce the supply of Secondary Energy at its sole discretion for any cause whatsoever. The energy delivered shall be used solely for the operation of the equipment engaged in fuel switching.

Energy Charge:

The energy charge shall be calculated monthly based on:

EITHER:

- A. The Customer's cost of fuel (cents per litre) most recently delivered to the Customer including fuel additives, if any, in accordance with the following formula:

Secondary Energy Rate = Constant Factor x Fuel Cost/Litre x 90%

$$\text{Constant Factor} = \frac{3413 \text{ BTU/kWh} \times A \times B}{B \times C}$$

Where:

- A = Customer's Electric Boiler Efficiency
B = Transformer and Losses Adjustment Factor
C = BTU/Litre of the Customer's fuel
D = Customer's Oil-fired Boiler Efficiency

OR:

- B. The price equivalent to that negotiated for the sale of energy to non-regulated customers, as adjusted for losses.

WHICHEVER IS GREATER.

NEWFOUNDLAND AND LABRADOR HYDRO

RATE No. 3.1H (continued)

SECONDARY ENERGY

Prior to the commencement of service, the Customer will provide to Hydro the rate component values for insertion in the pricing formula for Secondary Energy. If subsequent changes to any of these rate components are required, the Customer will provide them to Hydro as soon as practicable. Hydro may require that these rate component values be verified.

Communications

The Customer and Hydro shall each designate a position within their respective staffs to be responsible for communications as to changes in the cost of the fuel delivered to the Customer. Hydro will contact the Customer's designate on or before the second working day of each month at which time the Customer's designate will inform Hydro of the fuel cost. If this information is unavailable to Hydro for any reason, Hydro will use the previous month's fuel cost and make the adjustment to the correct cost in the following month's billing.

Power Factor

If the Customer's power factor is lower than 90%, the Customer shall upon written notice by Hydro provide, at the Customer's expense, power factor corrective equipment to ensure that a power factor of not less than 90% is maintained.

General:

Insofar as they are not inconsistent with the forgoing, the conditions of service provided in the Rules and Regulations shall apply to Customers in this rate class.

This rate schedule does not include the Harmonized Sales Tax (HST) which applies to electricity bills.

NEWFOUNDLAND AND LABRADOR HYDRO

RATE No. 4.1H

STREET AND AREA LIGHTING SERVICE

Availability:

For Street and Area Lighting Service throughout the Happy Valley-Goose Bay Interconnected service area of Hydro, where the electricity is supplied by Hydro and all fixtures, wiring and controls are provided, owned and maintained by Hydro.

Monthly Rate:

	SENTINEL / STANDARD
MERCURY VAPOUR	
250W (9,400 lumens)	\$ 9.99
HIGH PRESSURE SODIUM ¹	
100W (8,600 lumens)	8.75
150W (14,400 lumens)	12.10
250W (23,200 lumens)	15.95
400W (45,000 lumens)	20.10

¹ For all new installations and replacements.

Special poles used exclusively for lighting service

Wood.....\$ 3.00

General:

Details regarding conditions of service are provided in the Rules and Regulations.
This rate schedule does not include the Harmonized Sales Tax (HST) which applies to electricity bills.

NEWFOUNDLAND AND LABRADOR HYDRO

RATE No. 1.1W

DOMESTIC

Availability:

For Service throughout the Labrador City and Wabush Interconnected service area of Hydro, to a Domestic Unit or to buildings or facilities which are on the same Serviced Premises as a Domestic Unit and used by the same Customer exclusively for domestic or household purposes, whether such buildings or facilities are included on the same meter as the Domestic Unit or metered separately.

Rate:

Basic Customer Charge:..... \$3.75 per month

Energy Charge:

All kilowatt-hours@ 1.35 ¢ per kWh

Minimum Monthly Charge.....\$3.75

Discount:

A discount of 1.5% of the amount of the current month's bill, but not less than \$1.00, will be allowed if the bill is paid within 10 days after it is issued.

General:

Details regarding conditions of service are provided in the Rules and Regulations.

This rate schedule does not include the Harmonized Sales Tax (HST) which applies to electricity bills.

NEWFOUNDLAND AND LABRADOR HYDRO

RATE No. 2.1W

GENERAL SERVICE 0 - 10 kW

Availability:

For Service (excluding Domestic Service) throughout the Labrador City and Wabush Interconnected service area of Hydro, where the maximum demand occurring in the 12 months ending with the current month is less than 10 kilowatts.

Rate:

Basic Customer Charge:..... \$9.10 per month

Energy Charge:

All kilowatt-hours@ 2.20 ¢ per kWh

Minimum Monthly Charge: Single Phase\$9.10

Three Phase\$20.00

Discount:

A discount of 1.5% of the amount of the current month's bill, but not less than \$1.00, will be allowed if the bill is paid within 10 days after it is issued.

General:

Details regarding conditions of service are provided in the Rules and Regulations.

This rate schedule does not include the Harmonized Sales Tax (HST) which applies to electricity bills.

NEWFOUNDLAND AND LABRADOR HYDRO

RATE No. 2.2W

GENERAL SERVICE 10 - 100 kW (110 kVa)

Availability:

For Service (excluding Domestic Service) throughout the Labrador City and Wabush Interconnected service area of Hydro, where the maximum demand occurring in the 12 months ending with the current month is 10 kilowatts or greater but less than 100 kilowatts (110 kilovolt-amperes).

Rate:

Demand Charge:

The maximum demand registered on the meter in the current month.....@ \$2.00 per kW

Energy Charge:

All kilowatt-hours@ 1.60 ¢ per kWh

Maximum Monthly Charge:

The Maximum Monthly Charge shall be 6.8 cents per kWh, but not less than the Minimum Monthly Charge.

Minimum Monthly Charge:

An amount equal to \$1.05 per kW of maximum demand occurring in the 12 months ending with the current month, but not less than \$20.00 for a three phase service.

Discount:

A discount of 1.5% of the amount of the current month's bill, but not less than \$1.00, will be allowed if the bill is paid within 10 days after it is issued.

General:

Details regarding metering [in particular Regulation 7 (n)], transformation [in particular Regulation 9(k)], and other conditions of service are provided in the Rules and Regulations. This rate schedule does not include the Harmonized Sales Tax (HST) which applies to electricity bills.

NEWFOUNDLAND AND LABRADOR HYDRO
RATE No. 2.3W
GENERAL SERVICE 110 kVa (100 kW) - 1000 kVa

Availability:

For Service (excluding Domestic Service) throughout the Labrador City and Wabush Interconnected service area of Hydro, where the maximum demand occurring in the 12 months ending with the current month is 110 kilovolt-amperes (100 kilowatts) or greater but less than 1000 kilovolt-amperes.

Rate:

Demand Charge:

The maximum demand registered on the meter in the current month.....@ \$1.75 per kVa

Energy Charge:

All kilowatt-hours@ 1.50 ¢ per kWh

Maximum Monthly Charge:

The Maximum Monthly Charge shall be 6.8 cents per kWh, but not less than the Minimum Monthly Charge.

Minimum Monthly Charge:

An amount equal to \$1.05 per kVa of maximum demand occurring in the 12 months ending with the current month.

Discount:

A discount of 1.5% of the amount of the current month's bill, up to a maximum of \$500.00, will be allowed if the bill is paid within 10 days after it is issued.

General:

Details regarding metering [in particular Regulation 7 (n)], transformation [in particular Regulation 9(k)], and other conditions of service are provided in the Rules and Regulations. This rate schedule does not include the Harmonized Sales Tax (HST) which applies to electricity bills.

NEWFOUNDLAND AND LABRADOR HYDRO

RATE No. 2.4W

GENERAL SERVICE 1000 kVa AND OVER

Availability:

For Service (excluding Domestic Service) throughout the Labrador City and Wabush Interconnected service area of Hydro, where the maximum demand occurring in the 12 month period ending with the current month is 1000 kilovolt-amperes or greater.

Rate:

Billing Demand Charge:

The maximum demand registered on the meter in the current month.....@ \$1.50 per kVa

Energy Charge:

All kilowatt-hours@ 1.40 ¢ per kWh

Maximum Monthly Charge:

The Maximum Monthly Charge shall be 6.8 cents per kWh, but not less than the Minimum Monthly Charge.

Minimum Monthly Charge:

An amount equal to \$1.05 per kVA of maximum demand occurring in the 12 months ending with the current month.

Discount:

A discount of 1.5% of the amount of the current month's bill, up to a maximum of \$500.00, will be allowed if the bill is paid within 10 days after it is issued.

General:

Details regarding metering [in particular Regulation 7 (n)], transformation [in particular Regulation 9(k)], and other conditions of service are provided in the Rules and Regulations. This rate schedule does not include the Harmonized Sales Tax (HST) which applies to electricity bills.

NEWFOUNDLAND AND LABRADOR HYDRO
RATE No. 4.1W
STREET AND AREA LIGHTING SERVICE

Availability:

For Street and Area Lighting Service throughout the Labrador City and Wabush Interconnected service area of Hydro, where the electricity is supplied by Hydro and all fixtures, wiring and controls are provided, owned and maintained by Hydro.

Monthly Rate:

	SENTINEL / STANDARD
MERCURY VAPOUR¹	
250W (9,400 lumens)	\$ 5.04
HIGH PRESSURE SODIUM ²	
100W (8,600 lumens)	7.11
150W (14,400 lumens)	9.09
250W (23,200 lumens)	10.36
400W (45,000 lumens)	13.70

¹ Fixtures previously owned by the Town of Wabush as of September 1, 1985, and transferred to Hydro in 1987.

² For all new installations and replacements installed after December 31, 2001.

Special poles used exclusively for lighting service

Wood \$ 3.00

General:

Details regarding conditions of service are provided in the Rules and Regulations. This rate schedule does not include the Harmonized Sales Tax (HST) which applies to electricity bills.

NEWFOUNDLAND AND LABRADOR HYDRO
RATE No. 4.11W
STREET AND AREA LIGHTING SERVICE

Availability:

For Street and Area Lighting Service throughout the Labrador City service area of Hydro, where the electricity is supplied by Hydro and all fixtures, wiring and controls are provided, owned and maintained by Hydro existing as of December 31, 2001.

Monthly Rate:

	SENTINEL / STANDARD
HIGH PRESSURE SODIUM ¹	
100W (8,600 lumens)	\$ 2.65

¹ Any new fixtures added will be at the rates set out in Rate 4.1W.

Special poles used exclusively for lighting service

Wood \$ 3.00

General:

Details regarding conditions of service are provided in the Rules and Regulations.
This rate schedule does not include the Harmonized Sales Tax (HST) which applies to electricity bills.

Rules and Regulations

NEWFOUNDLAND AND LABRADOR HYDRO
RULES AND REGULATIONS

APPLICABILITY:

These general Rules and Regulations apply to all Hydro Rural Customers.

1. INTERPRETATION:

(a) In these Rates and Rules the following definitions shall apply:

- (i) "***Act***" means The Public Utilities Act, R.S.N. 1990, c.P-47 as amended from time to time.
- (ii) "***Applicant***" means any person who applies for Service.
- (iii) "***Board***" means the Board of Commissioners of Public Utilities of Newfoundland.
- (iv) "***Hydro***" means Newfoundland and Labrador Hydro.
- (v) "***Hydro rural customers***" means regulated customers served by Hydro other than industrial customers and Newfoundland Power.
- (vi) "***Customer***" means any person who accepts or agrees to accept Service.
- (vii) "***Disconnected***" or "***Disconnect***" in reference to a Service means the physical interruption of the supply of electricity thereto.
- (viii) "***Discontinued***" or "***Discontinue***" in reference to a Service means to terminate the Customer's on-going responsibility with respect to the Service.
- (ix) "***Domestic Unit***" means a house, apartment or other similar residential unit which is normally occupied by one family, or by a family and no more than four other persons who are not members of that family, or which is normally occupied by no more than six unrelated persons.
- (x) "***Service***" means any service(s) provided by Hydro pursuant to these Regulations.
- (xi) "***Serviced premises***" means the premises at which Service is delivered to the Customer.
- (xii) "***Government Departments and Agencies***" means electric service accounts of Provincial or Federal government departments, agencies, boards, commissions, and crown corporations and includes schools and hospitals.

NEWFOUNDLAND AND LABRADOR HYDRO

RULES AND REGULATIONS

(b) Unless the context requires otherwise these Rates and Rules shall be interpreted such that:

- (i) words imparting male persons include female persons and corporations.
- (ii) words imparting the singular include the plural and vice versa.

2. CLASSES OF SERVICE:

(a) Hydro shall provide the following classes of Service:

ISLAND INTERCONNECTED AREA

- 1.1 Domestic
- 2.1 General Service, 0-10 kW
- 2.2 General Service, 10-100 kW (110 kVA)
- 2.3 General Service, 110 kVA (100 kW) - 1000 kVA
- 2.4 General Service, 1000 kVA and Over
- 4.1 Street and Area Lighting Service

ISLAND AND LABRADOR DIESEL AREA

- 1.2D Domestic Diesel
- 2.5D General Service Diesel
- 4.1D Street and Area Lighting Service Diesel
- 1.2G Domestic Diesel - Government Departments and Agencies
- 2.5G General Service Diesel - Government Departments and Agencies
- 4.1G Street and Area Lighting Service Diesel - Government Departments and Agencies

HAPPY VALLEY-GOOSE BAY INTERCONNECTED AREA

- 1.1H Domestic
- 2.1H General Service, 0-10 kW
- 2.2H General Service, 10-100 kW (110 kVA)
- 2.3H General Service, 110 kVA (100 kW) - 1000 kVA
- 2.4H General Service, 1000 kVA and Over
- 3.1H Secondary Energy
- 4.1H Street and Area Lighting Service

LABRADOR CITY / WABUSH INTERCONNECTED AREA

NEWFOUNDLAND AND LABRADOR HYDRO

RULES AND REGULATIONS

1.1W	Domestic
2.1W	General Service, 0-10 kW
2.2W	General Service, 10-100 kW (110 kVA)
2.3W	General Service, 110 kVA (100 kW) - 1000 kVA
2.4W	General Service, 1000 kVA and Over
4.1W	Street and Area Lighting Service
4.11W	Street and Area Lighting Service Labrador City - Installed as of Dec. 31, 2001.

- (b) The terms and conditions relating to each class of Service shall be those approved by the Board from time to time.
- (c) Service, other than Street and Area Lighting Service, shall be metered except where the energy consumption is relatively low and constant and in the opinion of Hydro can be readily determined without metering.
- (d) The Customer shall use the Service on the Serviced Premises only. The Customer shall not resell the Service in whole or in part except that the Customer may include the cost of Service in charges for the lease of space or as part of the cost of other services provided by the Customer.

3. APPLICATION FOR SERVICE:

- (a) An Applicant, when required by Hydro, shall complete a written Electrical Service Contract.
- (b) An application for Service, when accepted by Hydro, constitutes a binding contract between the Applicant and Hydro which cannot be assigned.
- (c) The person who signs an application for Service shall be personally liable for Service provided pursuant thereto, unless that person has authority to act for another Person denoted as the Applicant on the application for Service.
- (d) Hydro may in its discretion refuse to provide Service to an Applicant where:
 - (i) the Applicant fails or refuses to complete an application for Service.
 - (ii) the Applicant provides false or misleading information on the application for Service.
 - (iii) the Applicant or the Owner or an Occupant of the Serviced Premises has a bill for any Service which is not paid in full 30 days or more after issuance.
 - (iv) the Applicant fails to provide the security or guarantee required under Regulation 4.

NEWFOUNDLAND AND LABRADOR HYDRO

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- (v) the Applicant is not the owner or an occupant of the Serviced Premises.
 - (vi) the Service requested is already supplied to the Serviced Premises for another Customer who does not consent to having his Service Discontinued.
 - (vii) the Applicant does not pay a charge described in Regulation 9 (b),(c) or (d).
 - (viii) the Applicant otherwise fails to comply with these Regulations.
- (e) A Customer who has not completed an application for Service shall do so within 5 days of a request having been made by Hydro in writing.

4. SECURITY FOR PAYMENT:

- (a) An Applicant or a Customer shall give such reasonable security for the payment of charges as may be required by Hydro. When the Customer ceases to use the service, and pays all bills, the security deposit is to be returned with simple interest calculated at a Rate equivalent to the Rate paid from time to time by the chartered banks on over-the-counter withdrawal savings accounts.
- (b) Hydro may in its discretion require special guarantees from an Applicant or Customer whose location or load characteristics would require abnormal investment in facilities or who requires Service of a special nature.

5. SERVICE STANDARDS - METERED SERVICES:

- (a) Service shall normally be provided at one of the following nominal standard secondary voltages depending upon the requirements of the load to be served and the availability of a three phase supply:

Single phase, 3-Wire	-	120/240 volts
Three phase, 4-Wire	-	120/208 volts wye
Three phase, 4-Wire	-	347/600 volts wye

Service at any other supply voltage may be provided in special cases at the discretion of Hydro.

- (b) Service shall be supplied at single-phase 120/240 volts where the maximum demand is estimated by Hydro to be less than 75 kW. Where the maximum demand is estimated to be 75kW or greater, service shall normally be supplied at one of the standard three-phase voltages.

Hydro may, if requested by the Customer, provide a three-phase supply where the maximum demand is estimated to be less than 75 kW, if a contribution in aid of construction is paid to

NEWFOUNDLAND AND LABRADOR HYDRO

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Hydro to cover the cost of transformers, equipment and any line extensions or upgrades required to provide the three-phase service.

To determine the contribution required, the cost to provide three-phase service will be reduced by the value of any single-phase plant supported by the projected revenue from the Customer, as calculated in accordance with Hydro's distribution line contribution in aid of construction policy applicable to General Service Customers. Where the necessary equipment and transformer capacity already exist at the location in question, no contribution in aid of construction will be required to provide the three-phase service.

- (c) Hydro shall determine the point at which power and energy is delivered from Hydro's facilities to the Customer's electrical system.
- (d) Service entrances shall be in a location satisfactory to Hydro and, except as otherwise approved by Hydro, shall be wired for outdoor meters.
- (e) Where Hydro has reason to believe that Service to a Customer has or will have load characteristics which may cause undue interference with Service to another Customer, the Customer shall upon written notice by Hydro provide and install, at his expense and within a reasonable period of time, the equipment necessary to eliminate or prevent such interference.
- (f)
 - (i) Any Customer having a connected load or a normal operating demand of more than 25 kilowatts, in areas where space limitations or aesthetic reasons make it impractical to use a pole mounted transformer bank, shall, on request of Hydro, install and maintain a padmount transformer and all associated underground wiring, or provide at his expense a suitable vault or enclosure on the Serviced Premises for exclusive use by Hydro for its equipment necessary to supply and maintain service to the Customer.
 - (ii) Where either the service requirements of a Customer or changes to a Customer's electrical system necessitate the installation of additional equipment to Hydro's system which cannot be accommodated in Hydro's existing vaults or structures, the Customer shall, on request of Hydro, provide at the Customer's expense such additional space in its vault or enclosure as Hydro shall require to accommodate the additional equipment.
- (g) The Customer shall not use a Service for across the line starting of motors rated over 10 horsepower except where specifically approved by Hydro.
- (h) For Services having rates based on kilowatt demand, the average power factor shall not be less than 90%. Hydro, in its discretion, may make continuous tests of power factor or may test the Customer's power factor from time to time. If the Customer's power factor is lower than 90%, the Customer shall upon written notice by Hydro provide, at his expense, power factor corrective equipment to ensure that a power factor of not less than 90% is maintained.

NEWFOUNDLAND AND LABRADOR HYDRO

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- (i) Hydro shall provide transformation for Service up to 500 kVA where the required service voltage is one of Hydro's standard service voltages and installation is in accordance with Hydro's standards. In other circumstances, Hydro, on such conditions as it deems acceptable, may provide the transformation.
- (j) All Customer wiring and installations shall be in compliance with all statutory and regulatory requirements including the Canadian Electrical Code, Part 1 and, where applicable, in accordance with Hydro's specifications. However, the provision of Service shall not in any way be construed as acceptance by Hydro of the Customer's electrical system.
- (k) The Customer shall provide such protective devices as may be necessary to protect his property and equipment from any disturbance beyond the reasonable control of Hydro.

6. SERVICE STANDARDS - STREET AND AREA LIGHTING SERVICE:

- (a) For Street And Area Lighting Service Hydro shall use its best efforts to provide illumination during the hours of darkness for a total of approximately 4200 hours per year. Hydro shall, subject to Regulation 9 (i) make all repairs necessary to maintain service.
- (b) Hydro shall supply the energy required and shall provide and maintain the illuminating fixtures and lamps together with necessary overhead conductors, control equipment and other devices.
- (c) Hydro shall not be required to provide Street and Area Lighting Service where, in the opinion of Hydro, the normal Service is unsuitable for the task or where the nature of the activities carried out in the area would likely result in damage to the poles, wiring or fixtures.
- (d) Hydro shall provide a range of fixture sizes utilizing an efficient lighting source in accordance with current standards in the industry and shall consult with the Customer regarding the most appropriate use of such fixtures for any specific installation.
- (e) The location of fixtures for Street and Area Lighting Service shall be determined by Hydro in consultation with the Customer. After poles and fixtures have been installed they shall not be relocated except at the expense of the Customer.
- (f) Hydro does not guarantee that fixtures used for Street And Area Lighting Service will illuminate any specific area.
- (g) Where the installation of fixtures is required in a location where there are no existing distribution poles the Customer shall pay any contribution in aid of construction as may be determined under Hydro's policy for the pole line extension required to supply electric service to the location of the fixtures.

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- (h) Hydro shall not be required to provide additional Street And Area Lighting Service to a Customer where on at least two occasions in the preceding twelve months, his bill for such Service has been in arrears for more than 30 days.

7. METERING:

- (a) Service to each building shall be metered separately except as provided in Regulation 7(b).
- (b) Service to buildings and facilities on the same Serviced Premises which are occupied by the same Customer may, subject to Regulation 7(c), be metered together provided the Customer supplies and maintains all distribution facilities beyond the point of supply.
- (c) Except as provided in Regulation 7(d) Service to each new Domestic Unit shall be metered separately.
- (d) Where an existing Domestic Unit is subdivided into two or more new Domestic Units, Service to the new Domestic Units may, in the discretion of Hydro, be metered together.
- (e) Where four or more Domestic Units are metered together, the Basic Customer Charge shall be multiplied by the number of Domestic Units.
- (f) Where the floor space in the non-domestic portion exceeds 46 sq. meters, the Service shall not qualify for the Domestic Service Rate.
- (g) Hydro shall not be required to provide more than one meter per Service, however, sub-metering by the Customer for any purpose not inconsistent with these Regulations is permitted.
- (h) Subject to Regulations 7(c) and 7(g) Service to different units of a building may, at the request of the Customer, be combined on one meter or be metered separately.
- (i) Maximum demand for billing purposes shall be determined by demand meter or, at the option of Hydro, may be based on:
 - (i) 80% of the connected load, where the demand does not exceed 100 kW, or
 - (ii) the smallest size transformer(s) required to serve the load if it is intermittent in nature such as X-Ray, welding machines or motors that operate for periods of less than thirty minutes, or
 - (iii) the kilowatt-hour consumption divided by an appropriate number of hours use where the demand is less than 10 kW.

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- (j) When charges are based on maximum demand the metering shall normally be in kVA if the applicable Rate is in kVA and in kW if the applicable Rate is in kW.

If the demand is recorded on a kVA meter but the applicable Rate is based on a kW demand, the recorded demand may be decreased by ten percent (10%) and the result shall be treated as the kW demand for billing purposes.

If the demand is recorded on a kW meter but the applicable Rate is based on a kVA demand, the recorded demand may be increased by ten percent (10%) and the result shall be treated as the kVA demand for billing purposes.

- (k) The Customer shall ensure that meters and related equipment are visible and readily accessible to Hydro's personnel and are suitably protected. Unless otherwise approved by Hydro, meters shall be located outdoors and shall not subsequently be enclosed.
- (l) If a meter is located indoors and Hydro employees are unable to obtain access to read the meter at the normal reading time for three consecutive months, the Customer shall upon written notice given by Hydro, provide for the installation of an outdoor meter at his expense.
- (m) In the event that a dispute arises regarding the accuracy of a meter, and Hydro is unable to resolve the matter with the Customer then either the Customer or Hydro shall have the right to request an accuracy test in accordance with the requirements of the Electricity Inspection Act of Canada. Should the test indicate that the meter accuracy is not within the allowable limits, the Customer's bill shall be adjusted in accordance with the provisions of the said Act and all costs involved in the removal and testing of the meter shall be borne by Hydro. Should the test confirm the accuracy of the meter, the costs involved shall be borne by the party requesting the test. Hydro may require a Customer to deposit with Hydro in advance of testing, an amount sufficient to cover the costs involved.
- (n) Metering shall normally be at secondary distribution voltage level but may at the option of Hydro be at the primary distribution level. When metering is at the primary distribution voltage (4-25KV) the monthly demand and energy consumption shall be reduced by 1.5%.

8. METER READING:

- (a) Where reasonably possible Hydro shall read meters monthly provided that Hydro may, at its discretion, read meters at some other interval and estimate the reading for the intervening month(s). Areas which consist primarily of cottages will have their meters read four times per year and Hydro will estimate the readings for all other months.

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- (b) If Hydro is unable to obtain a meter reading due to circumstances beyond its reasonable control, Hydro may estimate the reading.
- (c) If due to any cause a meter has not correctly recorded energy consumption or demand, then the probable consumption or demand shall be estimated in accordance with the best data available and used to determine the relevant charge.

9. CHARGES:

- (a) Every Customer shall pay Hydro the charges approved by the Board from time to time for the Service(s) provided to the Customer or provided to the Serviced Premises at the Customer's request.
- (b) Where a Customer requires Service for a period of less than three (3) years, the Customer shall pay Hydro in advance a "Temporary Connection Fee". The Temporary Connection Fee is calculated as the estimated labour cost of installing and removing lines and equipment necessary for the Service plus the estimated cost of non-salvageable material.
- (c) Where special facilities are required or requested by the Customer or any facility is relocated at the request of the Customer, the Customer shall pay Hydro in advance the estimated additional cost of providing the special facilities and the estimated cost of the relocation less any betterment.
- (d) The Customer shall pay Hydro in advance or on such other terms approved by the Board from time to time any contribution in aid of construction as may be determined by the methods prescribed by the Board.
- (e) The Customer shall pay Hydro the amount set forth in the Rate for all poles required for Street And Area Lighting Service which are in addition to those installed by Hydro for the distribution of electricity. This charge shall not apply to Hydro poles and communications poles used jointly for Street And Area Lighting Service and communications attachments.
- (f) Where a Service is Disconnected pursuant to Rule 12(a), (b)(ii), (c) or (d) and the Customer subsequently requests that the Service be reconnected, the Customer shall pay a reconnection fee prior to reconnecting the Service. The reconnection fee shall be \$20.00 where the reconnection is done during Hydro's normal office hours or \$40.00 if it is done at other times.
- (g) Where a Service, other than a Street and Area Lighting Service, is Discontinued pursuant to

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Regulation 11(a), or Disconnected pursuant to Regulations 12(a), b(ii), (c) or (d) and the Customer subsequently requests that the Service be restored within 12 months, the Customer shall pay, in advance, the minimum monthly charges that would have been incurred over the period if the Service had not been Discontinued or Disconnected.

- (h)
 - (i) Where a Street and Area Lighting Service is Discontinued pursuant to Regulation 11(a), (b), or (c), or 9(i), or when a Customer requests removal of existing fixtures, and/or poles, the Customer shall pay at the time of removal an amount equal to the unrecovered capital cost, plus the cost of removal less any salvage value of only the poles to be Discontinued or removed.
 - (ii) If a Customer requests the subsequent replacement of the fixture, either immediately or at any time within 12 months by another, whether or not of the same type or size, the Customer shall pay, in advance, an amount equal to the unrecovered capital cost of the fixture removed, plus the cost of removal, less any non-luminaire salvage, as well as the monthly charges that would have been incurred over the period if the Service had not been Discontinued.
 - (iii) Where a Street and Area Lighting Service is Discontinued, any pole dedicated solely to the Street and Area Lighting Service may, at the Customer's request, remain in place for up to 24 months from the date of removal of the fixture, during which time the Customer shall continue to pay the prescribed monthly charge for the pole.
- (i) Where street and area lighting fixtures or lamps are wantonly, wilfully, or negligently damaged or destroyed (other than through the negligence of Hydro), Hydro, at its option and after notifying the Customer by letter, shall remove the fixtures and the monthly charges for these fixtures will cease thirty days after the date of the letter. However, if the customer contacts Hydro within thirty days of the date of the letter and agrees to pay the repair costs in advance and all future repair costs, Hydro will replace the fixture and rental charges will recommence. If any future repair costs are not paid within three months of the date invoiced, Hydro, after further notifying the Customer by letter, may remove the fixtures. In all such cases the fixtures shall not be replaced unless the Customer pays to Hydro in advance all amounts owing prior to removal plus the cost of removing the old fixtures and installing the new fixtures.
- (j) Where a Service other than Street and Area Lighting Service is not provided to the Customer for the full monthly billing period or where Street and Area Lighting Service is not provided for more than seven (7) days during the monthly billing period, the relevant charge to the Customer for the Service for that period may be prorated except where the failure to provide the Service is due to the Customer or to circumstances beyond the reasonable control of Hydro.
- (k) Where a Customer's Service is at primary distribution or transmission voltage and the Customer provides his own transformation and all other facilities beyond the designated point of supply

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the monthly demand charge shall, subject to the minimum monthly charge, be reduced as follows:

For the Island Interconnected, L'Anse au Loup and Isolated service areas:

- (i) for supply at 4 KV to 25 KV\$0.40 per kVA
- (ii) for supply at 33 KV to 138 KV.....\$0.90 per kVA

For the Happy Valley-Goose Bay, Labrador City and Wabush service areas:

- (iii) for supply at 4 KV to 25 KV\$0.25 per kVA
- (iv) for supply at 33 KV to 138 KV.....\$0.60 per kVA

- (l) Where a Customer's monthly demand has been permanently reduced because of the installation of peak load controls, power factor correction, or by rendering sufficient equipment inoperable, by any means satisfactory to Hydro, the monthly demands recorded prior to the effective date of such reduction may be adjusted when determining the Customer's demand for billing purposes thereafter. Should the Customer's demand increase above the adjusted demands in the following 12 months, the Customer will be billed for the charges that would have been incurred over the period if the demand had not been adjusted.
- (m) Charges may be based on estimated readings or costs where such estimates are authorized by these Regulations.
- (n) A Statement Preparation Fee may be charged to Customers when statements of account are requested for any period prior to the current twelve months. The Statement Preparation Fee shall be \$20.00 for each twelve month period, or a portion thereof, as requested by the Customer.
- (o) An application fee of \$14.00 will be charged for all requests for Customer name changes at a Serviced Premises, and \$8.00 for new services. Landlords will be exempted from the application fee for name changes at Serviced Premises for which a landlord agreement pursuant to Regulation 11(f) is in effect.

10. BILLING:

- (a) Hydro shall bill the Customer monthly for charges for Service. However, when a Service is disconnected or a bill is revised, Hydro may issue an additional bill.

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- (b) The charges for Street And Area Lighting Service may be included as a separate item on a bill for any other Service.
- (c) Bills are due and payable when issued. Payment shall be made at such place(s) as Hydro may designate from time to time. Where a bill is not paid in full by the date that a subsequent bill is issued and the amount outstanding is \$50.00 or more, 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.
- (d) Where a Customer's cheque is not honoured for insufficient funds a charge of \$10.00 may be applied to the Customer's bill.
- (e) Where a Customer is billed on the basis of an estimated charge, an adjustment shall be made in a subsequent bill should such estimate prove to be inaccurate.
- (f) Where between normal meter reading dates, one Customer assumes from another Customer the responsibility for a metered Service or a Service is Discontinued, Hydro may base the billing on an estimate of the reading as of the date of change.
- (g) Where 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.

11. DISCONTINUANCE OF SERVICE:

- (a) A Service may be Discontinued by the Customer at any time upon prior notice to Hydro provided that Hydro may require 10 days prior notice in writing.
- (b) A Service may be Discontinued by Hydro upon 10 days prior notice in writing to the Customer if the Customer:
 - (i) provided false or misleading information on the application for the Service
 - (ii) fails to provide security or guarantee for the Service required under Regulation 4.
- (c) A Service may be Discontinued by Hydro without notice if the Service was Disconnected pursuant to Rule 12 and has remained Disconnected for over 30 consecutive days.

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- (d) When Hydro accepts an application for Service, any prior contract for the same Service shall be Discontinued except where an agreement for that Service is signed by a landlord under Regulation 11(f).
- (e) Where a Service has been Discontinued, the Service may, at the option of Hydro and subject to Rule 12(a), remain connected.
- (f) A landlord may sign an agreement with Hydro to accept charges for Service provided to a rental premise for all periods when Hydro does not have a contract for Service with a tenant for that premise.

12. DISCONNECTION OF SERVICE:

- (a) Hydro shall Disconnect a Service within 10 days of receipt of a written request from the Customer.
- (b) Hydro may Disconnect a Service without notice to the Customer:
 - (i) where the Service has been Discontinued
 - (ii) on account of or to prevent fraud or abuse
 - (iii) where in the opinion of Hydro the Customer's electrical system is defective and represents a danger to life or property.
 - (iv) where the Customer's electrical system has been modified without compliance with the Electrical Regulations.
 - (v) where the Customer has a building or structure under Hydro's wires which is within the minimum clearances recommended by the Canadian Standards Association.
 - (vi) when ordered to do so by any authority having the legal right to issue such order.
- (c) Hydro may, in accordance with its Collection Policies, Disconnect a Service upon prior notice to the Customer if the Customer has a bill for any Service which is not paid in full 30 days or more after issuance.
- (d) Hydro may Disconnect a Service upon 10 days prior notice to the Customer if the Customer is in violation of any provision of these Regulations.
- (e) Hydro may refuse to reconnect a Service if the Customer is in violation of any provisions of these Rules or if the Customer has a bill for any Service which is unpaid.

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- (f) Hydro may disconnect a service to make repairs or alterations. Where reasonable and practical, Hydro shall give prior notice to the Customer.

13. PROPERTY RIGHTS:

- (a) The Customer shall provide Hydro with space and cleared rights-of-way on private property for the line(s) and facilities required to serve the Customer.
- (b) Hydro shall have the right to install, remove or replace such of its property as it deems necessary.
- (c) The Customer shall provide Hydro with access to the Serviced Premises at all reasonable hours for purposes of reading a meter or installing, replacing, removing or testing its equipment, and measuring or checking the connected load.
- (d) All equipment and facilities provided by Hydro shall remain the property of Hydro unless otherwise agreed in writing.
- (e) The Customer shall not unreasonably interfere with Hydro's access to its property.
- (f) The Customer shall not attach wire, cables, clotheslines or any other fixtures to Hydro's poles or other property except by prior written permission of Hydro.
- (g) The Customer shall allow Hydro to trim all trees in close proximity to service lines in order to maintain such lines in a safe manner.
- (h) The Customer shall not erect any buildings or obstructions on any of Hydro's easement lands or alter the grade of such easements by more than 20 centimetres, without the prior approval of Hydro.

14. HYDRO LIABILITY:

Hydro shall not be liable for any failure to supply Service for any cause beyond its reasonable control, nor shall it be liable for any loss, damage or injury caused by the use of Services or resulting from any cause beyond its reasonable control.

15. GENERAL:

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- (a) No employee, representative or agent of Hydro has authority to make any promise, agreement or representation, whether verbal or otherwise, which is inconsistent with these Regulations and no such promise, agreement or representation shall be binding on Hydro.

- (b) Any notice under these Regulations will be considered to have been given to the Customer on the date it is received by the Customer or three days following the date it was delivered or mailed by Hydro to the Customer's last known address, whichever is sooner.

Industrial Contracts

- (e) **“Electricity”** includes Power and Energy;
- (f) **“Energy”** means the amount of electricity delivered in a given period of time and measured in kilowatt hours;
- (g) **“Firm Energy”** means the Energy associated with the Firm Power;
- (h) **“Firm Power”** means, except as varied by paragraph 3.02(a) and subject to Clause 3.03, the Demand normally associated with the Amount of Power on Order;
- (i) **“Hydro Delivery Points”** means the 230,000 volt bus at the Customer’s premises at its Stephenville paper mill;
- (j) **“Interruptible Demand”** means, that part of a Customer’s Demand which exceeds its Power on Order, which may be interrupted, in whole or in part, at the discretion of Hydro, and which is supplied to the Customer in accordance with Clause 5.01;
- (k) **“Maximum Demand”** means the greatest amount of Power averaged over a period of fifteen consecutive minutes during the appropriate month or part of a month, as the case may be, and measured by a demand meter of a type approved for revenue metering by the appropriate department of the Government of Canada;
- (l) **“Month”** means a calendar month;
- (m) **“Non-Firm Energy”** means Energy associated with Interruptible Demand;
- (n) **“Power”** means the amount of electrical power delivered at any time and measured in kilowatts;
- (o) **“Province”** means the the Province of Newfoundland;
- (p) **“Rate Schedules”** means the schedules of rates that are approved by the Board for the sale and purchase of Power and Energy;
- (q) **“Rules and Regulations”** means those rules and regulations which are set by the Board and which govern the sale of Power and Energy between Hydro and the Customer.
- (r) **“Secondary Energy”** means that Energy Hydro is willing to sell, according to Clause 4.01, at a rate approved by the Board and which, if not sold, would be surplus to its needs and likely to result in spillage at one or more of Hydro’s hydraulic generating stations;

- (s) **“Specifically Assigned Charge”** means the payment made by the Customer in each Month, calculated according to a method approved by the Board, for the use of Specifically Assigned Plant;
 - (t) **“Specifically Assigned Plant”** means that equipment and those facilities which are owned by Hydro and used to serve the Customer only;
-
- 1.02 Hydro and the Customer agree that they are bound by this Agreement and by the agreements and covenants contained in the Schedule of Rates and any Rules and Regulations that may be approved from time to time by the Board. In the event of a conflict between this Agreement, the Schedule of Rates, or the Rules and Regulations, the said documents shall be considered in the following order of priority, unless otherwise provided: the Rate Schedules, this Agreement, the Rules and Regulations.
 - 1.03 In this Agreement all references to dollar amounts and all references to any other money amounts are, unless specifically otherwise provided, expressed in terms of coin or currency of Canada which at the time of payment or determination shall be legal tender herein for the payment of public and private debts.
 - 1.04 Words in this Agreement importing the singular number shall include the plural and vice versa and words importing the masculine gender shall include the feminine and neuter genders.
 - 1.05 Where a word is defined anywhere in this Agreement, other parts of speech and tenses of the same word have corresponding meanings.
 - 1.06 Wherever in this Agreement a number of days is prescribed for any purpose, the days shall be reckoned exclusively of the first and inclusively of the last.
 - 1.07 The headings of all the articles are inserted for convenience of reference only and shall not affect the construction or interpretation of this Agreement.
 - 1.08 Any reference in this Agreement to an Article, a Clause, a subclause or a paragraph shall, unless the context otherwise specifically requires, be taken as a reference to an article, a clause, a subclause or a paragraph of this Agreement.
 - 1.09 This Agreement may be executed in two or more counterparts, each of which when so executed shall be deemed to be an original, but all of such counterparts together shall constitute one and the same instrument.

ARTICLE 2
AMOUNT OF FIRM POWER

- 2.01 Subject to this Agreement, Hydro agrees to deliver to the Customer and the Customer agrees to purchase from Hydro the Amount of Power on Order.
- 2.02 The Customer shall declare to Hydro in writing, not later than October 1 of each calendar year, its Amount of Power on Order for the following calendar year. Such declarations may provide for an Amount of Power on Order to apply throughout the calendar year, or may provide for one or more successive increases at specified times during the calendar year, but subject to Clause 2.05, may not provide for a decrease other than a decrease to take effect on January 1st of that following calendar year. The Amount of Power on Order shall in no event be greater than 90,000 kilowatts.
- 2.03 Hydro will supply all future Power requirements requested by the Customer additional to the 90,000 kilowatts provided, however, that the Customer's requests for such additional Power be made upon adequate notice in order that Hydro may make suitable extensions or additions to its system.
- 2.04 If Hydro cannot fully comply with a declaration of Amount of Power on Order made in accordance with Article 2.02 it will, as soon as practicable and in any event not later than November 1 of the year in which the declaration was made, advise the Customer of the extent to which it can comply.
- 2.05 If the Customer obtains a new source of electric generation such that it can decrease or eliminate the amount of Power it requires from Hydro, then, provided the Customer gives Hydro thirty-six Month's written notice of the reduction, the Customer may reduce or eliminate its Amount of Power on Order and its Billing Demand effective on the date that the new generation is to go into service as indicated in that written notice.

ARTICLE 3
PURCHASE AND SALE OF POWER AND ENERGY

- 3.01 The sale and purchase of Power and Energy shall be at such prices and upon such terms and conditions as are set out in the Rate Schedules, this Agreement, and the Rules and Regulations.
- 3.02 Subject to Clause 2.05 and Article 10, the Customer's Billing Demands, which shall each be charged at the applicable rates as approved by the Board, shall comprise the following:
- (a) the Billing Demand for Firm Power, which in each Month shall be either

(i) the Amount of Power on Order,

(ii) the lesser of 75% of the Amount of Power on Order for the prior calendar year and, the Amount of Power on Order for the prior calendar year less 15,000 kW,

or

(iii) the Maximum Demand taken up to that time in that calendar year less any Interruptible Demand, if applicable,

whichever is greatest; and

(b) the maximum Interruptible Demand for that Month.

3.03 Notwithstanding that the Billing Demand for Firm Power shall have, by operation of Clause 3.02, exceeded the Power on Order declared for that calendar year in accordance with Article 2, Hydro is not obliged to provide any amount of Power in excess of the Power on Order.

3.04 Notwithstanding anything to the contrary herein, the Customer shall pay in each Month its Specifically Assigned Charge, applicable Demand charges, and Energy charges. Its Energy charges shall comprise its Firm Energy and Non-Firm Energy taken in that Month.

ARTICLE 4 **SECONDARY ENERGY AND WHEELING**

4.01 If Hydro has surplus Energy capability and the Customer desires to purchase it, Hydro will deliver Secondary Energy to the Customer for use in its electric boilers, the quantity and availability of which shall be determined by Hydro in its sole discretion. The rate to be paid for Secondary Energy shall be determined by the Board.

4.02 The Customer owns and operates hydro-electric generating plants at Buchans, Grand Falls and Bishop's Falls. Energy from these generating stations that is in excess of the requirements at the Grand Falls paper mill shall be wheeled by Hydro to the Customer's paper mill at Stephenville.

4.03 Energy wheeled from the Customer's electric generating plants at Buchans, Grand Falls or Bishop's Falls shall be wheeled through Hydro's system to its Stephenville paper mill at the wheeling rate approved by the Board. 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 as approved by the Board.

ARTICLE 5
INTERRUPTIBLE DEMAND

- 5.01 In addition to its Power on Order, in any Month the Customer may take an amount of Interruptible Demand and Energy which shall be billed at the Non-Firm Demand and Energy rates approved by the Board. The amount of Interruptible Demand and Energy available shall be the lesser of 25% of the Power on Order and 5,000 kW. If Hydro is willing and able to serve the Customer's Interruptible Demand, then the following shall apply:
- (a) The Customer shall, if practicable, make a prior request for, or otherwise as soon as practicable notify Hydro of its requirement, specifying the amount and duration of its Interruptible Demand requirements. Such request or notification may be made by telephone and confirmed by facsimile transmission to Hydro's officials at its Energy Control Centre, who shall advise the Customer if such Interruptible Power will be made available.
 - (b) If serving the Customer's Interruptible Demand would result in Hydro generating from, or increasing or prolonging generation from a standby or emergency energy source, then Hydro will so advise the Customer. If the Customer wishes to purchase Interruptible Demand and Energy at such a time or times, that Power and Energy shall be charged for as calculated by the method or formula approved by the Board.
 - (c) Notwithstanding anything contrary herein, if service of the Interruptible Demand is disrupted by Hydro or is curtailed by the Customer as a decision to reject the more expensive standby or emergency energy source, the Billing Demand for Interruptible Power for the Month shall be determined in accordance with Clause 10.02.

ARTICLE 6
CHARACTERISTICS OF POWER SERVICE AND POINTS OF DELIVERY

- 6.01 The Power and Energy to be supplied under this Agreement will be delivered to the Customer at three (3) phase alternating current having a normal frequency of

sixty (60) cycles and at a voltage of approximately 230,000 volts and delivery will be made at the Hydro Delivery Points.

- 6.02 Hydro will exercise its best endeavours to limit variation from the normal frequency and voltage to tolerable values.

ARTICLE 7
POWER FACTOR

- 7.01 The Customer agrees to take and use the Power contracted for in this Agreement at a power factor of not less than ninety percent (90%) lagging at the point of delivery specified in this Agreement.
- 7.02 Should the power factor be consistently less than ninety percent (90%) lagging, the Customer, upon written notification from Hydro, agrees to install suitable corrective equipment to bring the power factor to a minimum of ninety percent (90%) lagging.
- 7.03 If the Customer should install static condensers to correct the lagging power factor, the equipment shall be so installed that it can be completely disconnected at the request of Hydro.

ARTICLE 8
METERING

- 8.01 The metering equipment and meters to register the amount of Demand and Energy to be taken by the Customer under this Agreement shall be furnished by Hydro and if required to be located on the Customer's premises will be installed by Hydro in a suitable place satisfactory to Hydro and provided by the Customer, and in such manner as to register accurately the total amount of Demand and Energy taken by the Customer under this Agreement.
- 8.02 If the metering is installed on the low voltage side of transformers that are Specifically Assigned Plant or owned by the Customer, an appropriate adjustment will be made to account for losses in the transformers.
- 8.03 The Customer shall have the right, at its own expense, to install, equip and maintain check meters adjacent to the meters of Hydro.
- 8.04 Authorized employees of Hydro shall have the right of access to all such meters at all reasonable times for the purpose of reading, inspecting, testing, repairing or replacing them. Should any meter fail to register accurately, Hydro may charge for the Demand and Energy supplied during the period when the registration was inaccurate, either,

- (a) on the basis of the amount of Demand and Energy charged for
 - (i) during the corresponding term immediately succeeding or preceding the period of alleged inaccurate registration, or
 - (ii) during the corresponding term in the previous calendar year; or
- (b) on the basis of the amount of Demand and Energy supplied as established by available evidence,

whichever basis appears most fair and accurate.

ARTICLE 9
LIABILITY FOR SERVICE

- 9.01 Subject to the provisions of the Rate Schedules, this Agreement, and the Rules and Regulations, the Power and Energy herein contracted for will be made available for use by the Customer during twenty-four (24) hours on each and every day of the term of this Agreement.
- 9.02 The obligation of Hydro to furnish Power and Energy under this Agreement is expressly subject to all accidents or causes that may occur at any time and affect the generation or transmission of such Power and Energy, and in any such event, but subject to Clause 9.04, Hydro shall have the right in its discretion to reduce or, if necessary, to interrupt the supply of Power and Energy under this Agreement.
- 9.03 The Customer agrees that Hydro shall not be liable for loss or damage arising from any reduction or interruption of the supply of Power and Energy under this Agreement or for any loss or damage resulting from variations in the frequency or voltage of such supply.
- 9.04 Hydro agrees to take all reasonable precautions to prevent any reduction or interruption of the supply of Power and Energy or any variation in the frequency or voltage of such supply, and whenever any such reduction, interruption or variation occurs, Hydro shall use all reasonable diligence to restore its service promptly.
- 9.05 Hydro shall have the right, temporarily to interrupt its service hereunder in order to maintain or make necessary changes to its system, but, except in cases of emergency or accident, the service shall be interrupted only at such time or times as will be least inconvenient to the Customer, and Hydro shall use all reasonable diligence to complete promptly such repairs or necessary changes.

ARTICLE 10
REDUCED BILLING DEMAND

- 10.01 If at any time during the term of this Agreement the operation of the works of either party is suspended in whole or in part by reason of war, rebellion, civil disturbance, strikes, serious epidemics, fire or other fortuitous event, then, such party will not be liable to the other party to purchase or, as the case may be, to supply Power and Energy hereunder until the cause of such suspension has been removed and in every such event, the party whose operations are so suspended shall use all reasonable diligence to remove the cause of the suspension.
- 10.02 (1) For the purposes of this Clause 10.02 the expression “reduced Billing Demand” means the number of kilowatts to which the Billing Demand is reduced in any of the circumstances referred to in subclauses (2) or (3) of this Clause 10.02.
- (2) If the Customer is prevented from taking an amount of Power because of a suspension of its operations due to a reason listed in Clause 10.01, and any such interruption or reduction lasts for one hour or longer, then Hydro shall, on the request of the Customer, allow a proportionate reduction of the Billing Demand as calculated pursuant to subclauses (4) through (8) of this Clause 10.02, provided however that in no such case shall the Billing Demand be reduced below 0.85 of the Amount of Power on Order unless Hydro is unable to deliver Power and Energy in accordance with this Agreement.
- (3) If the supply of Power and Energy by Hydro is interrupted or reduced for any of the reasons referred to in Clause 9.02, 9.05 or 10.01, and any such interruption or reduction lasts for one hour or longer, then Hydro shall, on the request of the Customer, allow a proportionate reduction of the payment as calculated pursuant to subclauses (4) through (8) of this Clause 10.02.
- (4) If there is a total interruption of Power and Energy for a whole Month, the Customer shall not be required to make any payment for that Month.
- (5) If there is a total interruption of Power for part of a Month, the Billing Demand for that Month shall be reduced by a number of kilowatts bearing the same ratio to that Billing Demand as the number of hours during which the interruption occurs bears to the total number of hours in that Month.
- (6) If the reduction of Power is made for a whole Month, then, subject to clause (8) of this Clause 10.02, the reduced Billing Demand for that Month shall be substituted for the Billing Demand for the same Month, when determining the price of Power and Energy for that Month.

- (7) If the reduction of Power is made for part of a Month, then, subject to subclause (8) of this Clause 10.02, there shall, when determining the price of Power and Energy for the Months in which the reduction occurs, be substituted for the Billing Demand for that Month, the number of kilowatts obtained by adding
- (a) the reduced Billing Demand for the part of the month during which the reduction was made, averaged over the whole of that Month;
- to
- (b) the Billing Demand for the part of the Month during which no reduction was made, averaged over the whole of that Month.
- (8) In any case arising under subclause (6) or subclause (7) of this Clause 10.02, where a reduction of Power is made for a whole Month or part thereof and the Maximum Demand for that same period is greater than the reduced Billing Demand for that same period, then, instead of the reduced Billing Demand, the Maximum Demand for such period shall be substituted for the Billing Demand for that period when determining the price of Power and Energy for the Month in which the reduction occurs, but, if in any period during which a reduction occurs, the Maximum Demand is less than the reduced Billing Demand no account shall be taken of that Maximum Demand.
- (9) Where a Billing Demand, a reduced Billing Demand or a Maximum Demand for a part of a Month is to be averaged for the whole of that Month in accordance with subclause (7) of this Clause 10.02, the averaging shall be done by dividing the Billing Demand, the reduced Billing Demand or the Maximum Demand, as the case may be, by the total number of hours in the whole of that Month and multiplying the result by the number of hours to which the Billing Demand, the reduced Billing Demand or the Maximum Demand relates.
- (10) In addition to the reductions in Billing Demand that may be made in accordance with this Article 10, Hydro may, in its sole judgment and discretion, make other Billing Demand adjustments from time to time to decrease the Customer's bill to reflect unusual or unanticipated conditions or to facilitate the testing of equipment or processes by the Customer.

ARTICLE 11
CONSTRUCTION OR INSTALLATION OF
TRANSMISSION LINES OR APPARATUS

- 11.01 For the consideration aforesaid, the Customer hereby grants to Hydro the right to construct transmission lines and accessory apparatus on locations approved by the Customer on, under or over the property of the Customer for the purpose of serving the Customer and the other customers of Hydro, together with the right of access to the property of the Customer at all times for the construction of such lines and apparatus and for the repair, maintenance and removal thereof, provided that nothing in this clause shall entitle Hydro to construct transmission lines and accessory apparatus on or over the Customer's property if such transmission lines are not directly connected with the Customer's premises or some part thereof.
- 11.02 The Customer shall not erect any building, structure or object on or over any right-of-way referred to in Clause 11.01 without the written approval of Hydro, but subject to that limitation the Customer shall be entitled to make fair and reasonable use of all lands subjected to the said right-of-way.
- 11.03 Any changes that the Customer may request Hydro to make in the location of any lines or apparatus constructed pursuant to Clause 11.01 shall be made by Hydro, but the Customer shall bear the expense of any such changes to the extent that such lines or apparatus supply Power to the Customer.
- 11.04 All transmission lines and apparatus of Hydro furnished and installed by it on the Customer's premises shall remain the property of Hydro, and Hydro shall be entitled to remove such transmission lines and apparatus on the expiry or termination of this Agreement.
- 11.05 For the purpose of using the power service of Hydro, the Customer shall install properly designed and suitable apparatus in accordance with good engineering practice, and shall at all times operate and maintain such apparatus so as to avoid causing any undue disturbance on the system of Hydro, and so that the current shall be approximately equal on all three of its phases.
- 11.06 If, at any time, the unbalance in current between any two of its phases is, in the judgment of Hydro, excessive to a degree that the power supply system of Hydro and/or the electrical equipment of any other customer of Hydro is adversely affected, then it shall be the responsibility of the Customer to take such reasonable remedial measures as may be necessary to reduce the unbalance to an acceptable value.

- 11.07 If, at any time during the term of this Agreement, Hydro desires to improve the continuity of power service to any of its customers, Hydro and the Customer will co-operate and use their best endeavours to carry out the improvements either by changes to existing equipment or additions to the original installations of either Hydro or the Customer.
- 11.08 The Customer shall not proceed with the construction of or major alterations of its equipment or structures associated with any terminal substation at which Power and Energy is being delivered until Hydro is satisfied that the proposals for such construction or alteration are in accordance with good engineering practice and the laws and regulations of the Province, provided that any examination of the Customer's proposals by Hydro shall not render Hydro responsible in any way for the construction or alteration proposed, even if electrical connection is made by Hydro, whether or not any changes suggested by Hydro shall have been made by the Customer.

ARTICLE 12
RESPONSIBILITY FOR DAMAGES

- 12.01 Beyond the point of delivery, the Customer shall indemnify and hold Hydro harmless with respect to any and all claims that may be made for injuries or damages to persons or property caused in any manner by electric current or by the presence or use on the Customer's premises of electric circuits or apparatus, whether owned by Hydro or by the Customer, unless and to the extent that such injuries or damages are caused by negligence on the part of the employees of Hydro.
- 12.02 Up to the point of delivery, Hydro shall indemnify and hold the Customer harmless with respect to any and all claims that may be made for injuries or damages to persons or property caused in any manner by electric current or by the presence or use on the Customer's premises of electric circuits or apparatus owned by Hydro and resulting from or arising out of the negligence of Hydro's employees or other persons for whom Hydro would in law be liable, unless and to the extent that such injuries or damages are caused by negligence on the part of the employees of the Customer.
- 12.03 If any of the transmission lines or apparatus installed by Hydro on the Customer's premises should be destroyed or damaged by the negligence of the Customer, its servants or agents, the Customer shall reimburse Hydro for the cost of their replacement or repair.

ARTICLE 13
PAYMENT OF ACCOUNTS AND NOTICE OF CLAIMS OF CUSTOMER

- 13.01 Hydro will render its accounts monthly and the Customer shall, within twenty (20) days after the date of rendering any such account, make payment in lawful money of Canada at the office of Hydro in St. John's, Newfoundland, or in such other place in the said Province as Hydro may designate, without deduction for any claim or counterclaim which the Customer may have to claim to have against Hydro arising under this Agreement or otherwise.
- 13.02 All amounts in arrears after the expiration of the period of twenty (20) days referred to in Clause 13.01 shall bear interest at the rate of one and one-half (1-1/2%) percent per Month.
- 13.03 If the Customer is in default for more than thirty (30) days in paying any amount due Hydro under this Agreement, then, without prejudice to its other recourses and without liability therefor, Hydro shall, upon ten (10) days written notice to the Customer of its intention so to do, be entitled to suspend the supply of Power and Energy to the Customer until the said amount is paid, and if the supply is so suspended, the Customer shall not be relieved of its obligations under this Agreement.
- 13.04 The Customer and Hydro will submit to the other in writing every claim or counterclaim which each may have or claim to have against the other arising under this Agreement within sixty days of the day upon which the Customer or Hydro has knowledge of the event giving rise to such a claim.
- 13.05 The Customer and Hydro shall be deemed to have waived all rights for the recovery of any claim or counterclaim that has not been submitted to the other party pursuant to and in accordance with Clause 13.04.

ARTICLE 14
ARBITRATION

- 14.01 If a settlement of any claim made by the Customer in accordance with Clause 13.04 is not agreed to by both parties, the matters in dispute shall be submitted, within three months from the time the claim was submitted, for decision to a board of arbitrators consisting of three members, one to be named by each party to this Agreement and the third to be named by the two arbitrators so chosen, and the decision of any two members of the board of arbitrators shall be final and binding upon both parties.
- 14.02 The charges of the third member of a board of arbitrators who shall be the chairman of that board, shall be borne by the losing party, and the parties shall

bear the costs or charges of their own appointees. Any arbitration hearing commenced under this Article shall be held in St. John's or such other place as the parties mutually agree.

- 14.03 If the two appointees of the parties are unable to agree upon the third arbitrator or chairman, the chairman shall be appointed upon application of either party to the Trial Division of the Supreme Court of Newfoundland or a judge of that Division.
- 14.04 The period of delay for appointment by the parties to this Agreement of their respective nominees shall be seven days after notification by the other party to this Agreement of its nominee, and the period for agreement by the two nominees on the chairman shall be ten days.
- 14.05 The provisions of the Arbitration Act, Chapter A - 14 of the Revised Statutes of Newfoundland, 1990, as now or hereafter amended shall apply to any arbitration held pursuant to this Article 14.
- 14.06 Unless both parties expressly waive the effect of this Clause 14.06, the provisions of this Article 14 from and including Clause 14.01 to and including Clause 14.05 shall not be applied to or in respect of any dispute involving or arising out of
- (a) the interpretation of this Agreement;
 - (b) any matter of law; or
 - (c) any matter of mixed fact and law.

ARTICLE 15
MODIFICATION OR TERMINATION OF AGREEMENT

- 15.01 Except, where otherwise specifically provided in this Agreement and only to the extent so provided, all previous communications between the parties to this Agreement, either oral or written, with reference to the subject matter of this Agreement, are hereby abrogated and this Agreement shall constitute the sole and complete agreement of the parties hereto in respect of the matters herein set forth.
- 15.02 At any time during the currency of this Agreement, the Customer may terminate it by giving to Hydro two years previous notice in writing of its intention so to do.

- 15.03 Any amendment, change or modification of this Agreement shall be binding upon the parties hereto or either of them only if such amendment, change or modification is in writing and is executed by each of the parties to this Agreement by its duly authorized officers or agents and in accordance with its regulations or by-laws.
- 15.04 Subject to Article 10, if the Customer voluntarily or forcibly abandons its operations, commits an act of bankruptcy or liquidates its assets, then, there shall, forthwith, become due and payable to Hydro by the Customer, as stipulated and liquidated damages without burden or proof thereof, a lump sum equal to:
- (a) 0.85 of its then current Billing Demand for Firm Power, at the Firm Power Demand charge, multiplied by 24
plus
 - (b) the remaining net book value of the Specifically Assigned Plant less its salvage value.
- 15.05 Nothing contained in this Agreement shall abrogate, amend, change or modify any provision of the agreement between the Customer and Hydro dated November 30, 1993 relating to curtailable power otherwise called "Interruptible B Power".

ARTICLE 16
SUCCESSORS AND ASSIGNS

- 16.01 This Agreement shall be binding upon and enure to the benefit of the parties hereto and their respective successors and assigns, but it shall not be assignable by the Customer without the written consent of Hydro.

ARTICLE 17
GOVERNING LAW AND FORUM

- 17.01 This Agreement shall be governed by and interpreted in accordance with the laws of the Province, and every action or other proceeding arising hereunder shall be determined exclusively by a court of competent jurisdiction in the Province, subject to the right of appeal to the Supreme Court of Canada where such appeal lies.

ARTICLE 18
ADDRESS FOR SERVICE

18.01 Subject to Clauses 18.02 and 18.03, any notice, request or other instrument which is required or permitted to be given, made or served under this Agreement by either of the parties hereto, except for notices or requests pertaining to Interruptible Demand or Secondary Energy, shall be given, made or served in writing and shall be deemed to be properly given, made or served if personally delivered, or sent by prepaid telegram or facsimile transmission, or mailed by prepaid registered post, addressed, if service is to be made

(a) on Hydro, to

The Secretary
Newfoundland and Labrador Hydro
Hydro Place
P.O. Box 12400
St. John's, Newfoundland
CANADA. A1B 4K7
FAX: (709) 737-1782
or

(b) on the Customer, to

General Manager
Abitibi-Consolidated Inc. (Stephenville Division)
P.O. Box 40
1143 Connecticut Drive
Stephenville, Newfoundland
A2N 2Y8

18.02 Any notice, request or other instrument given, made or served as provided in Clause 18.01 shall be deemed to have been received by the party hereto to which it is addressed, if personally served on the date of delivery, or if mailed three days after the time of its being so mailed, or if sent by prepaid telegram or facsimile transmission, one day after the date of sending.

18.03 Except for notices for Interruptible Demand or Secondary Energy, whenever this Agreement requires a notice to be given or a request to be made on a Sunday or legal holiday, such notice or request may be given or made on the first business day occurring thereafter, and, whenever in this Agreement the time within which any right will lapse or expire shall terminate on a Sunday or legal holiday, such time will continue to run until the next succeeding business day. Notices or requests pertaining to Interruptible Demand or Secondary Energy may be given and received by and to the appropriate nominees of the respective parties by voice

or electronic communication provided that it is confirmed in writing and transmitted or delivered by facsimile, courier or mail as soon as practicable.

18.04 Either of the parties hereto may change the address to which a notice, request or other instrument may be sent to it by giving to the other party to this Agreement notice of such change, and thereafter, every notice, request or other instrument shall be delivered or mailed in the manner prescribed in Clause 18.01 to such party at the new address.

IN WITNESS WHEREOF Newfoundland and Labrador Hydro and the Customer has each executed this Agreement by causing it to be executed in accordance with its by-laws or regulations and by its duly authorized officers or agents, the day and year first above written.

THE CORPORATE SEAL of
Newfoundland and Labrador
Hydro was hereunder
affixed in the presence of:

Witness

DULY EXECUTED by
Abitibi-Consolidated Inc.
in accordance with its
Regulations or By-Laws
in the presence of:

Witness

- (f) **“Demand”** means the amount of Power averaged over a period of fifteen consecutive minutes and measured by a demand meter of a type approved for revenue metering by the appropriate department of the Government of Canada;
- (g) **“Electricity”** includes Power and Energy;
- (h) **“Energy”** means the amount of electricity delivered in a given period of time and measured in kilowatt hours;
- (i) **“Firm Energy”** means the Energy associated with the Firm Power;
- (j) **“Firm Power”** means, except as varied by paragraph 3.02(a) and subject to Clause 3.03, the Demand normally associated with the Amount of Power on Order;
- (k) **“Generating Capacity”** means 59,000 kW, the amount of Power the Customer is able to generate at 60 Hz from its hydraulic generating resources, or to generate at 50 Hz from its hydraulic generating resources and have converted to 60 Hz, but does not include capacity from generating facilities dedicated to the generation of power and energy for sale or transfer to Hydro or to a third party;
- (l) **“Generation Outage”** means an outage or reduction of the Customer’s Generating Capacity due to equipment failure, planned maintenance, capital upgrades, or natural causes beyond the control of the Customer including but not limited to frazil ice and low intake water, but not including an outage to those facilities dedicated to the generation of power and energy for sale to Hydro or to a third party;
- (m) **“Generation Outage Demand”** means the Power taken by the Customer which exceeds the sum of the Amount of Power on Order and the maximum Interruptible Demand taken in the Month, and which is required to temporarily replace that Generating Capacity which is rendered unavailable to the Customer due to a Generation Outage;
- (n) **“Hydro Delivery Points”** means: (i) the 13,800 volt bus bar located in Hydro’s frequency converter building at Grand Falls where Electricity will be delivered at 60 cycles, (ii) the 6,600 volt bus bar located in Hydro’s frequency converter building at Grand Falls where Electricity will be delivered at either 50 or 60 cycles, and (iii) at the point where Hydro’s transmission line, TL-235, connects to the Customer’s 230,000 volt disconnect switch for the Customer’s transformer, T3, located adjacent to Hydro’s frequency converter building at Grand Falls where Electricity will be delivered at 60 cycles;

- (o) **“Interruptible Demand”** means, that part of a Customer’s Demand, other than its Generation Outage Demand and Compensation Demand, which exceeds its Power on Order, which may be interrupted, in whole or in part, at the discretion of Hydro, and which is supplied to the Customer in accordance with Clause 4.01;
 - (p) **“Maximum Demand”** means the greatest amount of Power averaged over a period of fifteen consecutive minutes during the appropriate month or part of a month, as the case may be, and measured by a demand meter of a type approved for revenue metering by the appropriate department of the Government of Canada;
 - (q) **“Month”** means a calendar month;
 - (r) **“Non-Firm Energy”** means Energy associated with either or both of Interruptible Demand and Generation Outage Demand;
 - (s) **“Power”** means the amount of electrical power delivered at any time and measured in kilowatts;
 - (t) **“Province”** means the the Province of Newfoundland;
 - (u) **“Rate Schedules”** means the schedules of rates that are approved by the Board for the sale and purchase of Power and Energy;
 - (v) **“Rules and Regulations”** means those rules and regulations which are set by the Board and which govern the sale of Power and Energy between Hydro and the Customer.
 - (w) **“Secondary Energy”** means that Energy Hydro is willing to sell, according to Clause 5.02, at a rate approved by the Board and which, if not sold, would be surplus to its needs and likely to result in spillage at one or more of Hydro’s hydraulic generating stations;
 - (x) **“Specifically Assigned Charge”** means the payment made by the Customer in each Month, calculated according to a method approved by the Board, for the use of Specifically Assigned Plant;
 - (y) **“Specifically Assigned Plant”** means that equipment and those facilities which are owned by Hydro and used to serve the Customer only;
- 1.02 Hydro and the Customer agree that they are bound by this Agreement and by the agreements and covenants contained in the Schedule of Rates, and any Rules and Regulations that may be approved from time to time by the Board. In the event of a conflict between this Agreement, the Schedule of Rates, or the Rules and

Regulations, the said documents shall be considered in the following order of priority, unless otherwise provided: the Rate Schedules, this Agreement, the Rules and Regulations.

- 1.03 In this Agreement all references to dollar amounts and all references to any other money amounts are, unless specifically otherwise provided, expressed in terms of coin or currency of Canada which at the time of payment or determination shall be legal tender herein for the payment of public and private debts.
- 1.04 Words in this Agreement importing the singular number shall include the plural and vice versa and words importing the masculine gender shall include the feminine and neuter genders.
- 1.05 Where a word is defined anywhere in this Agreement, other parts of speech and tenses of the same word have corresponding meanings.
- 1.06 Wherever in this Agreement a number of days is prescribed for any purpose, the days shall be reckoned exclusively of the first and inclusively of the last.
- 1.07 The headings of all the articles are inserted for convenience of reference only and shall not affect the construction or interpretation of this Agreement.
- 1.08 Any reference in this Agreement to an Article, a Clause, a subclause or a paragraph shall, unless the context otherwise specifically requires, be taken as a reference to an article, a clause, a subclause or a paragraph of this Agreement.
- 1.09 This Agreement may be executed in two or more counterparts, each of which when so executed shall be deemed to be an original, but all of such counterparts together shall constitute one and the same instrument.

ARTICLE 2
AMOUNT OF FIRM POWER

- 2.01 Subject to this Agreement, Hydro agrees to deliver to the Customer and the Customer agrees to purchase from Hydro the Amount of Power on Order.
- 2.02 The Customer shall declare to Hydro in writing, not later than October 1 of each calendar year, its Amount of Power on Order for the following calendar year. Such declarations may provide for an Amount of Power on Order to apply throughout the calendar year, or may provide for one or more successive increases at specified times during the calendar year, but subject to Clause 2.05, may not provide for a decrease other than a decrease to take effect on January 1st of that following calendar year. The Amount of Power on Order shall in no event be greater than 40,000 kilowatts.

- 2.03 Hydro will supply all future Power requirements requested by the Customer additional to the 40,000 kilowatts provided, however, that the Customer's requests for such additional Power be made upon adequate notice in order that Hydro may make suitable extensions or additions to its system.
- 2.04 If Hydro cannot fully comply with a declaration of Amount of Power on Order made in accordance with Article 2.02 it will, as soon as practicable and in any event not later than November 1 of the year in which the declaration was made, advise the Customer of the extent to which it can comply.
- 2.05 If the Customer increases its Generating Capacity such that it can decrease or eliminate the amount of Power it requires from Hydro, then, provided the Customer gives Hydro thirty-six Month's written notice of the reduction, the Customer may reduce or eliminate its Amount of Power on Order and its Billing Demand effective on the date that the new generation is to go into service as indicated in that written notice.

ARTICLE 3
PURCHASE AND SALE OF POWER AND ENERGY

- 3.01 The sale and purchase of Power and Energy shall be at such prices and upon such terms and conditions as are set out in the Rate Schedules, this Agreement, and the Rules and Regulations.
- 3.02 Subject to Article 10, the Customer's Billing Demands, which shall each be charged at the applicable rates as approved by the Board, shall comprise the following:
- (a) the Billing Demand for Firm Power, which in each Month shall be either
 - (i) the Amount of Power on Order,
 - (ii) the lesser of 75% of the Amount of Power on Order for the prior calendar year and, the Amount of Power on Order for the prior calendar year less 15,000 kW,or
 - (iii) the Maximum Demand taken up to that time in that calendar year, less any Interruptible Demand, Compensation Demand, and Generation Outage Demand, if applicable,
- whichever is greatest;

- (b) the maximum Interruptible Demand for that Month; and
 - (c) the Generation Outage Demand as determined and calculated in accordance with Article 5.

- 3.03 Notwithstanding that the Billing Demand for Firm Power shall have, by operation of Clause 3.02, exceeded the Power on Order declared for that calendar year in accordance with Article 2, Hydro is not obliged to provide any amount of Power in excess of the Power on Order.

- 3.04 Notwithstanding anything to the contrary herein, the Customer shall pay in each Month its Specifically Assigned Charge, applicable Demand charges, and Energy charges. Its Energy charges shall comprise its Firm Energy and Non-Firm Energy taken in that Month.

- 3.05
 - (a) Pursuant to an Agreement dated April 16, 1983 made between the Province of Newfoundland, Hydro and the predecessors of the Customer, (the General Compensation Agreement”) the parties thereto formalized an agreement reached in 1968 respecting compensation to the Customer in perpetuity for, among other things, water and water power losses caused by Phase 2 of Hydro’s Bay d’Espoir Project resulting from the diversion of certain waters tributary to the Exploits River.
 - (b) Pursuant to an Agreement dated April 6, 1983 and made between Hydro and a predecessors of the Customer, (the “Energy Compensation Agreement”) Hydro agreed to deliver annually to the Customer without charge, fee or cost to the Customer, the power and energy prescribed in the General Compensation Agreement.
 - (c) Hydro confirms its obligation to deliver to the Customer annually as Compensation Energy a maximum of 3 1million kilowatt hours of Energy. In each Month Hydro will provide Compensation Demand to the Customer to the maximum value of 8,000 kilowatts in an amount that shall not exceed the remaining amount of Compensation Energy for that Month at an 80% load factor. Compensation Demand and Energy shall be provided at the Hydro Delivery Points.
 - (d) For the purpose of calculating Billing Demand pursuant to this Agreement, the Compensation Demand declared by the Customer for the Month shall be deducted from the recorded Demand measurements for that Month.

- (e) Except for the Delivery Point specified herein, nothing in this Agreement shall abrogate, amend, change or modify any provision of the Energy Compensation Agreement or the General Compensation Agreement.

ARTICLE 4
INTERRUPTIBLE DEMAND

- 4.01 In addition to its Power on Order, in any Month the Customer may take an amount of Interruptible Demand and Energy which shall be billed at the Non-Firm Demand and Energy rates approved by the Board. The amount of Interruptible Demand and Energy available shall be the lesser of 25% of the Power on Order and 5,000 kW. If Hydro is willing and able to serve the Customer's Interruptible Demand, then the following shall apply:
- (a) The Customer shall, if practicable, make a prior request for, or otherwise as soon as practicable notify Hydro of its requirement, specifying the amount and duration of its Interruptible Demand requirements. Such request or notification may be made by telephone and confirmed by facsimile transmission to Hydro's officials at its Energy Control Centre, who shall advise the Customer if such Interruptible Power will be made available.
 - (b) If serving the Customer's Interruptible Demand would result in Hydro generating from, or increasing or prolonging generation from a standby or emergency energy source, then Hydro will so advise the Customer. If the Customer wishes to purchase Interruptible Demand and Energy at such a time or times, that Power and Energy shall be charged for as calculated by the method or formula approved by the Board.
 - (c) Notwithstanding anything contrary herein, if service of the Interruptible Demand is disrupted by Hydro or is curtailed by the Customer as a decision to reject the more expensive standby or emergency energy source, the Billing Demand for Interruptible Power for the Month shall be determined in accordance with Clause 10.02.

ARTICLE 5
GENERATION OUTAGE POWER,
SECONDARY ENERGY AND WHEELING

- 5.01 In the event that the Customer experiences or requires a Generation Outage, in addition to its Power on Order and any applicable Interruptible Power it may be taking, it may take an amount of Generation Outage Demand and Energy at Non-

Firm Rates. The availability of Generation Outage Demand shall be subject to Hydro's capability to deliver it, which Hydro shall determine at its sole discretion. The Generation Outage Demand taken in any instance shall not exceed the amount of generating capacity rendered unavailable because of the Generation Outage. If Hydro is willing and able to Provide the Customer with Generation Outage Demand and Energy, then the following shall apply:

- (a) The Customer shall, if practicable, make a prior request for, or otherwise as soon as practicable notify Hydro of its requirement, specifying the amount and duration of its Generation Outage Demand requirements. Such request or notification may be made by telephone and confirmed by facsimile transmission to Hydro's officials at its Energy Control Centre, who shall advise the Customer if such Generation Outage Demand will be made available. While requesting or taking Generation Outage Demand and Energy, the Customer shall notify Hydro of all circumstances and particulars as to the outage as soon as practicable and shall keep Hydro informed as those circumstances and particulars change. The Customer shall not make undue requests for Generation Outage Demand and Energy and it shall restore normal operating conditions as soon as reasonably possible.
- (b) If serving the Generation Outage Demand would result in Hydro generating from, or increasing or prolonging generation from a standby or emergency energy source, then Hydro will so advise the Customer. If the Customer wishes to purchase Generation Outage Demand and Energy at such a time or times, that Power and Energy shall be charged for as calculated by the method or formula approved by the Board.
- (c) Notwithstanding anything contrary herein, if service of the Generation Outage Demand is disrupted by Hydro or is curtailed by the Customer as a decision to reject the more expensive Energy provided from the standby or emergency energy source, the Billing Demand for the Generation Outage for that day shall be reduced in proportion to the number of hours in that day for which the more expensive energy was rejected.
- (d) The Generation Outage Demand billed shall be based upon the Maximum Demand taken during a period when Generation Outage Demand was taken, less the Power on Order and maximum Interruptible Demand for that Month, and it shall be pro-rated as the number of days that Generation Outage Demand is taken in that Month to the total number of days in that Month.

- 5.02 If Hydro has surplus Energy capability and the Customer desires to purchase it, Hydro will deliver Secondary Energy to the Customer for use in its electric boilers, the quantity and availability of which shall be determined by Hydro in its sole discretion. The rate to be paid for Secondary Energy shall be determined by the Board.
- 5.03 The Customer operates a small hydro-electric generating plant situate at Buchans. The amount of Power and Energy generated from the Buchans plant shall be wheeled by Hydro through its system to the Customer's paper mill at Grand Falls. In each fifteen-minute interval, Hydro shall credit the Customer's demand with the amount of Power that is wheeled from its Buchans hydro-electric plant to its Grand Falls paper mill during that interval, less an adjustment for average system losses equivalent to that approved by the Board for the wheeling of Energy.
- 5.04 When Hydro wheels Energy from the Customer's hydro-electric plant in Buchans to its paper mill at Grand Falls, the Customer shall be charged for the wheeling service at the rate approved by the Board with an adjustment for average system losses as approved by the Board.

ARTICLE 6
CHARACTERISTICS OF POWER SERVICE AND POINTS OF DELIVERY

- 6.01 The Power and Energy to be supplied under this Agreement will be delivered to the Customer at three (3) phase alternating current at the normal frequencies of fifty (50) and sixty (60) cycles and at a voltages of approximately 6,600, 13,800 and 230,000 volts, as is appropriate in each case for the respective Hydro Delivery Point.
- 6.02 Hydro will exercise its best endeavours to limit variation from the normal frequency and voltage to tolerable values.

ARTICLE 7
POWER FACTOR

- 7.01 The Customer agrees to take and use the Power contracted for in this Agreement at a power factor of not less than ninety percent (90%) lagging at the point of delivery specified in this Agreement.
- 7.02 Should the power factor be consistently less than ninety percent (90%) lagging, the Customer, upon written notification from Hydro, agrees to install suitable corrective equipment to bring the power factor to a minimum of ninety percent (90%) lagging.

- 7.03 If the Customer should install static condensers to correct the lagging power factor, the equipment shall be so installed that it can be completely disconnected at the request of Hydro.

ARTICLE 8
METERING

- 8.01 The metering equipment and meters to register the amount of Demand and Energy to be taken by the Customer under this Agreement shall be furnished by Hydro and if required to be located on the Customer's premises will be installed by Hydro in a suitable place satisfactory to Hydro and provided by the Customer, and in such manner as to register accurately the total amount of Demand and Energy taken by the Customer under this Agreement.
- 8.02 If the metering is installed on the low side of transformers that are Specifically Assigned Plant or owned by the Customer, an appropriate adjustment will be made to account for losses in the transformers.
- 8.03 The Customer shall have the right, at its own expense, to install, equip and maintain check meters adjacent to the meters of Hydro.
- 8.04 Authorized employees of Hydro shall have the right of access to all such meters at all reasonable times for the purpose of reading, inspecting, testing, repairing or replacing them. Should any meter fail to register accurately, Hydro may charge for the Demand and Energy supplied during the period when the registration was inaccurate, either,
- (a) on the basis of the amount of Demand and Energy charged for
 - (i) during the corresponding term immediately succeeding or preceding the period of alleged inaccurate registration, or
 - (ii) during the corresponding term in the previous calendar year; or
 - (b) on the basis of the amount of Demand and Energy supplied as established by available evidence,

whichever basis appears most fair and accurate.

ARTICLE 9
LIABILITY FOR SERVICE

- 9.01 Subject to the provisions of the Rate Schedules, this Agreement, and the Rules and Regulations, the Power and Energy herein contracted for will be made

- available for use by the Customer during twenty-four (24) hours on each and every day of the term of this Agreement.
- 9.02 The obligation of Hydro to furnish Power and Energy under this Agreement is expressly subject to all accidents or causes that may occur at any time and affect the generation or transmission of such Power and Energy, and in any such event, but subject to Clause 9.04, Hydro shall have the right in its discretion to reduce or, if necessary, to interrupt the supply of Power and Energy under this Agreement.
- 9.03 The Customer agrees that Hydro shall not be liable for loss or damage arising from any reduction or interruption of the supply of Power and Energy under this Agreement or for any loss or damage resulting from variations in the frequency or voltage of such supply.
- 9.04 Hydro agrees to take all reasonable precautions to prevent any reduction or interruption of the supply of Power and Energy or any variation in the frequency or voltage of such supply, and whenever any such reduction, interruption or variation occurs, Hydro shall use all reasonable diligence to restore its service promptly.
- 9.05 Hydro shall have the right, temporarily to interrupt its service hereunder in order to maintain or make necessary changes to its system, but, except in cases of emergency or accident, the service shall be interrupted only at such time or times as will be least inconvenient to the Customer, and Hydro shall use all reasonable diligence to complete promptly such repairs or necessary changes.

ARTICLE 10
REDUCED BILLING DEMAND

- 10.01 If at any time during the term of this Agreement the operation of the works of either party is suspended in whole or in part by reason of war, rebellion, civil disturbance, strikes, serious epidemics, fire or other fortuitous event, then, such party will not be liable to the other party to purchase or, as the case may be, to supply Power and Energy hereunder until the cause of such suspension has been removed and in every such event, the party whose operations are so suspended shall use all reasonable diligence to remove the cause of the suspension.
- 10.02 (1) For the purposes of this Clause 10.02 the expression “reduced Billing Demand” means the number of kilowatts to which the Billing Demand is reduced in any of the circumstances referred to in subclauses (2) or (3) of this Clause 10.02.
- (2) If the Customer is prevented from taking an amount of Power because of a suspension of its operations due to a reason listed in Clause 10.01, and any such interruption or reduction lasts for one hour or longer, then Hydro

shall, on the request of the Customer, allow a proportionate reduction of the Billing Demand as calculated pursuant to subclauses (4) through (8) of this Clause 10.02, provided however that in no such case shall the Billing Demand be reduced below 0.85 of the Amount of Power on Order unless Hydro is unable to deliver Power and Energy in accordance with this Agreement.

- (3) If the supply of Power and Energy by Hydro is interrupted or reduced for any of the reasons referred to in Clause 9.02, 9.05 or 10.01, and any such interruption or reduction lasts for one hour or longer, then Hydro shall, on the request of the Customer, allow a proportionate reduction of the payment as calculated pursuant to subclauses (4) through (8) of this Clause 10.02.
- (4) If there is a total interruption of Power and Energy for a whole Month, the Customer shall not be required to make any payment for that Month.
- (5) If there is a total interruption of Power for part of a Month, the Billing Demand for that Month shall be reduced by a number of kilowatts bearing the same ratio to that Billing Demand as the number of hours during which the interruption occurs bears to the total number of hours in that Month.
- (6) If the reduction of Power is made for a whole Month, then, subject to clause (8) of this Clause 10.02, the reduced Billing Demand for that Month shall be substituted for the Billing Demand for the same Month, when determining the price of Power and Energy for that Month.
- (7) If the reduction of Power is made for part of a Month, then, subject to subclause (8) of this Clause 10.02, there shall, when determining the price of Power and Energy for the Months in which the reduction occurs, be substituted for the Billing Demand for that Month, the number of kilowatts obtained by adding
 - (a) the reduced Billing Demand for the part of the month during which the reduction was made, averaged over the whole of that Month;to
 - (b) the Billing Demand for the part of the Month during which no reduction was made, averaged over the whole of that Month.
- (8) In any case arising under subclause (6) or subclause (7) of this Clause 10.02, where a reduction of Power is made for a whole Month or part thereof and the Maximum Demand for that same period is greater than the reduced Billing Demand for that same period, then, instead of the reduced

Billing Demand, the Maximum Demand for such period shall be substituted for the Billing Demand for that period when determining the price of Power and Energy for the Month in which the reduction occurs, but, if in any period during which a reduction occurs, the Maximum Demand is less than the reduced Billing Demand no account shall be taken of that Maximum Demand.

- (9) Where a Billing Demand, a reduced Billing Demand or a Maximum Demand for a part of a Month is to be averaged for the whole of that Month in accordance with subclause (7) of this Clause 10.02, the averaging shall be done by dividing the Billing Demand, the reduced Billing Demand or the Maximum Demand, as the case may be, by the total number of hours in the whole of that Month and multiplying the result by the number of hours to which the Billing Demand, the reduced Billing Demand or the Maximum Demand relates.
- (10) In addition to the reductions in Billing Demand that may be made in accordance with this Article 10, Hydro may, in its sole judgment and discretion, make other Billing Demand adjustments from time to time to decrease the Customer's bill to reflect unusual or unanticipated conditions or to facilitate the testing of equipment or processes by the Customer.

ARTICLE 11
CONSTRUCTION OR INSTALLATION OF
TRANSMISSION LINES OR APPARATUS

- 11.01 For the consideration aforesaid, the Customer hereby grants to Hydro the right to construct transmission lines and accessory apparatus on locations approved by the Customer on, under or over the property of the Customer for the purpose of serving the Customer and the other customers of Hydro, together with the right of access to the property of the Customer at all times for the construction of such lines and apparatus and for the repair, maintenance and removal thereof, provided that nothing in this clause shall entitle Hydro to construct transmission lines and accessory apparatus on or over the Customer's property if such transmission lines are not directly connected with the Customer's premises or some part thereof.
- 11.02 The Customer shall not erect any building, structure or object on or over any right-of-way referred to in Clause 11.01 without the written approval of Hydro, but subject to that limitation the Customer shall be entitled to make fair and reasonable use of all lands subjected to the said right-of-way.
- 11.03 Any changes that the Customer may request Hydro to make in the location of any lines or apparatus constructed pursuant to Clause 11.01, shall be made by Hydro, but the Customer shall bear the expense of any such changes to the extent that such lines or apparatus supply Power to the Customer.

- 11.04 All transmission lines and apparatus of Hydro furnished and installed by it on the Customer's premises shall remain the property of Hydro, and Hydro shall be entitled to remove such transmission lines and apparatus on the expiry or termination of this Agreement.
- 11.05 For the purpose of using the power service of Hydro, the Customer shall install properly designed and suitable apparatus in accordance with good engineering practice, and shall at all times operate and maintain such apparatus so as to avoid causing any undue disturbance on the system of Hydro, and so that the current shall be approximately equal on all three of its phases.
- 11.06 If, at any time, the unbalance in current between any two of its phases is, in the judgment of Hydro, excessive to a degree that the power supply system of Hydro and/or the electrical equipment of any other customer of Hydro is adversely affected, then it shall be the responsibility of the Customer to take such reasonable remedial measures as may be necessary to reduce the unbalance to an acceptable value.
- 11.07 If, at any time during the term of this Agreement, Hydro desires to improve the continuity of power service to any of its customers, Hydro and the Customer will co-operate and use their best endeavours to carry out the improvements either by changes to existing equipment or additions to the original installations of either Hydro or the Customer.
- 11.08 The Customer shall not proceed with the construction of or major alterations of its equipment or structures associated with any terminal substation at which Power and Energy is being delivered until Hydro is satisfied that the proposals for such construction or alteration are in accordance with good engineering practice and the laws and regulations of the Province, provided that any examination of the Customer's proposals by Hydro shall not render Hydro responsible in any way for the construction or alteration proposed, even if electrical connection is made by Hydro, whether or not any changes suggested by Hydro shall have been made by the Customer.

ARTICLE 12
RESPONSIBILITY FOR DAMAGES

- 12.01 Beyond the point of delivery, the Customer shall indemnify and hold Hydro harmless with respect to any and all claims that may be made for injuries or damages to persons or property caused in any manner by electric current or by the presence or use on the Customer's premises of electric circuits or apparatus, whether owned by Hydro or by the Customer, unless and to the extent that such injuries or damages are caused by negligence on the part of the employees of Hydro.

- 12.02 Up to the point of delivery, Hydro shall indemnify and hold the Customer harmless with respect to any and all claims that may be made for injuries or damages to persons or property caused in any manner by electric current or by the presence or use on the Customer's premises of electric circuits or apparatus owned by Hydro and resulting from or arising out of the negligence of Hydro's employees or other persons for whom Hydro would in law be liable, unless and to the extent that such injuries or damages are caused by negligence on the part of the employees of the Customer.
- 12.03 If any of the transmission lines or apparatus installed by Hydro on the Customer's premises should be destroyed or damaged by the negligence of the Customer, its servants or agents, the Customer shall reimburse Hydro for the cost of their replacement or repair.

ARTICLE 13
PAYMENT OF ACCOUNTS AND NOTICE OF CLAIMS OF CUSTOMER

- 13.01 Hydro will render its accounts monthly and the Customer shall, within twenty (20) days after the date of rendering any such account, make payment in lawful money of Canada at the office of Hydro in St. John's, Newfoundland, or in such other place in the said Province as Hydro may designate, without deduction for any claim or counterclaim which the Customer may have to claim to have against Hydro arising under this Agreement or otherwise.
- 13.02 All amounts in arrears after the expiration of the period of twenty (20) days referred to in Clause 13.01 shall bear interest at the rate of one and one-half (1-1/2%) percent per Month.
- 13.03 If the Customer is in default for more than thirty (30) days in paying any amount due Hydro under this Agreement, then, without prejudice to its other recourses and without liability therefor, Hydro shall, upon ten (10) days written notice to the Customer of its intention so to do, be entitled to suspend the supply of Power and Energy to the Customer until the said amount is paid, and if the supply is so suspended, the Customer shall not be relieved of its obligations under this Agreement.
- 13.04 The Customer and Hydro will submit to the other in writing every claim or counterclaim which each may have or claim to have against the other arising under this Agreement within sixty days of the day upon which the Customer or Hydro has knowledge of the event giving rise to such a claim.
- 13.05 The Customer and Hydro shall be deemed to have waived all rights for the recovery of any claim or counterclaim that has not been submitted to the other party pursuant to and in accordance with Clause 13.04.

ARTICLE 14
ARBITRATION

- 14.01 If a settlement of any claim made by the Customer in accordance with Clause 13.04 is not agreed to by both parties, the matters in dispute shall be submitted, within three months from the time the claim was submitted, for decision to a board of arbitrators consisting of three members, one to be named by each party to this Agreement and the third to be named by the two arbitrators so chosen, and the decision of any two members of the board of arbitrators shall be final and binding upon both parties.
- 14.02 The charges of the third member of a board of arbitrators who shall be the chairman of that board, shall be borne by the losing party, and the parties shall bear the costs or charges of their own appointees. Any arbitration hearing commenced under this Article shall be held in St. John's or such other place as the parties mutually agree.
- 14.03 If the two appointees of the parties are unable to agree upon the third arbitrator or chairman, the chairman shall be appointed upon application of either party to the Trial Division of the Supreme Court of Newfoundland or a judge of that Division.
- 14.04 The period of delay for appointment by the parties to this Agreement of their respective nominees shall be seven days after notification by the other party to this Agreement of its nominee, and the period for agreement by the two nominees on the chairman shall be ten days.
- 14.05 The provisions of the Arbitration Act, Chapter A - 14 of the Revised Statutes of Newfoundland, 1990, as now or hereafter amended shall apply to any arbitration held pursuant to this Article 14.
- 14.06 Unless both parties expressly waive the effect of this Clause 14.06, the provisions of this Article 14 from and including Clause 14.01 to and including Clause 14.05 shall not be applied to or in respect of any dispute involving or arising out of
- (a) the interpretation of this Agreement;
 - (b) any matter of law; or
 - (c) any matter of mixed fact and law.

ARTICLE 15
MODIFICATION OR TERMINATION OF AGREEMENT

- 15.01 Except, where otherwise specifically provided in this Agreement and only to the extent so provided, all previous communications between the parties to this

- Agreement, either oral or written, with reference to the subject matter of this Agreement, are hereby abrogated and this Agreement shall constitute the sole and complete agreement of the parties hereto in respect of the matters herein set forth.
- 15.02 At any time during the currency of this Agreement, the Customer may terminate it by giving to Hydro two years previous notice in writing of its intention so to do.
- 15.03 Any amendment, change or modification of this Agreement shall be binding upon the parties hereto or either of them only if such amendment, change or modification is in writing and is executed by each of the parties to this Agreement by its duly authorized officers or agents and in accordance with its regulations or by-laws.
- 15.04 Subject to Article 10, if the Customer voluntarily or forcibly abandons its operations, commits an act of bankruptcy or liquidates its assets, then, there shall, forthwith, become due and payable to Hydro by the Customer, as stipulated and liquidated damages without burden or proof thereof, a lump sum equal to:
- (a) 0.85 of its then current Billing Demand for Firm Power, at the Firm Power Demand rate, multiplied by 24;
plus
 - (b) the remaining net book value of Specifically Assigned Plant, less its salvage value.

ARTICLE 16
SUCCESSORS AND ASSIGNS

- 16.01 This Agreement shall be binding upon and enure to the benefit of the parties hereto and their respective successors and assigns, but it shall not be assignable by the Customer without the written consent of Hydro.

ARTICLE 17
GOVERNING LAW AND FORUM

- 17.01 This Agreement shall be governed by and interpreted in accordance with the laws of the Province, and every action or other proceeding arising hereunder shall be determined exclusively by a court of competent jurisdiction in the Province, subject to the right of appeal to the Supreme Court of Canada where such appeal lies.

ARTICLE 18
ADDRESS FOR SERVICE

18.01 Subject to Clauses 18.02 and 18.03, any notice, request or other instrument which is required or permitted to be given, made or served under this Agreement by either of the parties hereto, except for notices or requests pertaining to Interruptible Demand, Compensation Demand, Generation Outages or Secondary Energy, shall be given, made or served in writing and shall be deemed to be properly given, made or served if personally delivered, or sent by prepaid telegram or facsimile transmission, or mailed by prepaid registered post, addressed, if service is to be made

(a) on Hydro, to

The Secretary
Newfoundland and Labrador Hydro
Hydro Place
P.O. Box 12400
St. John's, Newfoundland
CANADA. A1B 4K7
FAX: (709) 737-1782

or

(b) on the Customer, to

General Manager
Abitibi-Consolidated Inc. (Grand Falls Division)
P.O. Box 500
7 Mill Road
Grand Falls-Windsor, Newfoundland
A2A 2K1

18.02 Any notice, request or other instrument given, made or served as provided in Clause 18.01 shall be deemed to have been received by the party hereto to which it is addressed, if personally served on the date of delivery, or if mailed three days after the time of its being so mailed, or if sent by prepaid telegram or facsimile transmission, one day after the date of sending.

18.03 Except for notices for Interruptible Demand, Generation Outage Demand, Compensation Demand and Energy or Secondary Energy, whenever this Agreement requires a notice to be given or a request to be made on a Sunday or legal holiday, such notice or request may be given or made on the first business day occurring thereafter, and, whenever in this Agreement the time within which any right will lapse or expire shall terminate on a Sunday or legal holiday, such time will continue to run until the next succeeding business day. Notices or

requests pertaining to Interruptible Demand, Generation Outages, Compensation Demand or Secondary Energy may be given and received by and to the appropriate nominees of the respective parties by voice or electronic communication provided that it is confirmed in writing and transmitted or delivered by facsimile, courier or mail as soon as practicable.

18.04 Either of the parties hereto may change the address to which a notice, request or other instrument may be sent to it by giving to the other party to this Agreement notice of such change, and thereafter, every notice, request or other instrument shall be delivered or mailed in the manner prescribed in Clause 18.01 to such party at the new address.

IN WITNESS WHEREOF Newfoundland and Labrador Hydro and the Customer has each executed this Agreement by causing it to be executed in accordance with its by-laws or regulations and by its duly authorized officers or agents, the day and year first above written.

THE CORPORATE SEAL of
**Newfoundland and Labrador
Hydro** was hereunder
affixed in the presence of:

Witness1

DULY EXECUTED by
Abitibi-Consolidated Inc.
in accordance with its
Regulations or By-Laws
in the presence of:

Witness

THIS SERVICE AGREEMENT made at St. John's, in the Province of Newfoundland
on the day of .

BETWEEN: **NEWFOUNDLAND AND LABRADOR HYDRO**, a
corporation and an agent of the Crown constituted by
statute, renamed and continued by the Hydro Corporation
Act, Revised Statutes of Newfoundland, Chapter H-16,
(hereinafter called "Hydro") of the first part;

AND **CORNER BROOK PULP AND PAPER LIMITED**, a
company organized under the laws of Newfoundland
(hereinafter called the "Customer") of the second part.

WHEREAS Hydro has agreed to sell Electrical Power and Energy to the Customer and
the Customer has agreed to purchase the same from Hydro according to the Rates, Rules
and Regulations set by the Board of Commissioners of Public Utilities for the Province of
Newfoundland and by the terms of this Agreement;

THEREFORE THIS AGREEMENT WITNESSETH that the parties agree as follows:

ARTICLE 1
INTERPRETATION

- 1.01 In this Agreement, including the recitals, unless the context otherwise requires,
- (a) "**Amount of Power on Order**" means the Power contracted for in accordance
with Article 2;
 - (b) "**Billing Demand**" means the components of the Customer's monthly Power
consumption for which Demand charges apply as determined in accordance
with Articles 3 and 10;
 - (c) "**Board**" means the Board of Commissioners of Public Utilities for
Newfoundland;
 - (d) "**Demand**" means the amount of Power averaged over a period of fifteen
consecutive minutes and measured by a demand meter of a type approved for
revenue metering by the appropriate department of the Government of
Canada;

- (e) **“Electricity”** includes Power and Energy;
- (f) **“Energy”** means the amount of electricity delivered in a given period of time and measured in kilowatt hours;
- (g) **“Firm Energy”** means the Energy associated with the Firm Power;
- (h) **“Firm Power”** means, except as varied by paragraph 3.02(a) and subject to Clause 3.03, the Demand normally associated with the Amount of Power on Order;
- (i) **“Generating Capacity”** means 99,100 kW, the amount of Power the Customer is able to generate at 60 Hz from its hydraulic generating resources, or to generate at 50 Hz from its hydraulic generating resources and have converted to 60 Hz, but does not include capacity from generating facilities dedicated to the generation of power and energy for sale or transfer to Hydro or to a third party;
- (j) **“Generation Outage”** means an outage or reduction of the Customer’s Generating Capacity due to equipment failure, planned maintenance, capital upgrades, or natural causes beyond the control of the Customer including but not limited to frazil ice and low intake water, but not including an outage to those facilities dedicated to the generation of power and energy for sale to Hydro or to a third party;
- (k) **“Generation Outage Demand”** means the Power taken by the Customer which exceeds the sum of the Amount of Power on Order and the maximum Interruptible Demand taken in the Month, and which is required to temporarily replace that Generating Capacity which is rendered unavailable to the Customer due to a Generation Outage;
- (l) **“Hydro Delivery Points”** means: (i) Hydro’s 66,000 volt bus in its Massey Drive Terminal Station at Corner Brook, (ii) the line side insulators of the Customer’s terminal structure near the east end of its Deer Lake Power Plant being the termination point of Hydro’s 66,000 volt line, and (iii) the 66,000 volt 60 cycle bus and 50 cycle buses in the No. 1 and No. 2 Substation of the Customer;
- (m) **“Interruptible Demand”** means, that part of a Customer’s Demand, other than its Generation Outage Demand, which exceeds its Power on Order, which may be interrupted, in whole or in part, at the discretion of Hydro, and which is supplied to the Customer in accordance with Clause 4.01;
- (n) **“Maximum Demand”** means the greatest amount of Power averaged over a period of fifteen consecutive minutes during the appropriate month or part of a month, as the case may be, and measured by a demand meter of a type

approved for revenue metering by the appropriate department of the Government of Canada;

- (o) **“Month”** means a calendar month;
 - (p) **“Non-Firm Energy”** means Energy associated with either or both of Interruptible Demand and Generation Outage Demand;
 - (q) **“Power”** means the amount of electrical power delivered at any time and measured in kilowatts;
 - (r) **“Province”** means the the Province of Newfoundland;
 - (s) **“Rate Schedules”** means the schedules of rates that are approved by the Board for the sale and purchase of Power and Energy;
 - (t) **“Rules and Regulations”** means those rules and regulations which are set by the Board and which govern the sale of Power and Energy between Hydro and the Customer.
 - (u) **“Secondary Energy”** means that Energy Hydro is willing to sell, according to Clause 5.02, at a rate approved by the Board and which, if not sold, would be surplus to its needs and likely to result in spillage at one or more of Hydro’s hydraulic generating stations;
 - (v) **“Specifically Assigned Charge”** means the payment made by the Customer in each Month, calculated according to a method approved by the Board, for the use of Specifically Assigned Plant;
 - (w) **“Specifically Assigned Plant”** means that equipment and those facilities which are owned by Hydro and used to serve the Customer only;
- 1.02 Hydro and the Customer agree that they are bound by this Agreement and by the agreements and covenants contained in the Schedule of Rates, and any Rules and Regulations that may be approved from time to time by the Board. In the event of a conflict between this Agreement, the Schedule of Rates, or the Rules and Regulations, the said documents shall be considered in the following order of priority, unless otherwise provided: the Rate Schedules, this Agreement, the Rules and Regulations.
- 1.03 In this Agreement all references to dollar amounts and all references to any other money amounts are, unless specifically otherwise provided, expressed in terms of coin or currency of Canada which at the time of payment or determination shall be legal tender herein for the payment of public and private debts.

- 1.04 Words in this Agreement importing the singular number shall include the plural and vice versa and words importing the masculine gender shall include the feminine and neuter genders.
- 1.05 Where a word is defined anywhere in this Agreement, other parts of speech and tenses of the same word have corresponding meanings.
- 1.06 Wherever in this Agreement a number of days is prescribed for any purpose, the days shall be reckoned exclusively of the first and inclusively of the last.
- 1.07 The headings of all the articles are inserted for convenience of reference only and shall not affect the construction or interpretation of this Agreement.
- 1.08 Any reference in this Agreement to an Article, a Clause, a subclause or a paragraph shall, unless the context otherwise specifically requires, be taken as a reference to an article, a clause, a subclause or a paragraph of this Agreement.
- 1.09 This Agreement may be executed in two or more counterparts, each of which when so executed shall be deemed to be an original, but all of such counterparts together shall constitute one and the same instrument.

ARTICLE 2
AMOUNT OF FIRM POWER

- 2.01 Subject to this Agreement, Hydro agrees to deliver to the Customer and the Customer agrees to purchase from Hydro the Amount of Power on Order.
- 2.02 The Customer shall declare to Hydro in writing, not later than October 1 of each calendar year, its Amount of Power on Order for the following calendar year. Such declarations may provide for an Amount of Power on Order to apply throughout the calendar year, or may provide for one or more successive increases at specified times during the calendar year, but subject to Clause 2.05, may not provide for a decrease other than a decrease to take effect on January 1st of that following calendar year. The Amount of Power on Order shall in no event be greater than 70,000 kilowatts.
- 2.03 Hydro will supply all future Power requirements requested by the Customer additional to the 70,000 kilowatts provided, however, that the Customer's requests for such additional Power be made upon adequate notice in order that Hydro may make suitable extensions or additions to its system.
- 2.04 If Hydro cannot fully comply with a declaration of Amount of Power on Order made in accordance with Article 2.02 it will, as soon as practicable and in any

event not later than November 1 of the year in which the declaration was made, advise the Customer of the extent to which it can comply.

- 2.05 If the Customer increases its Generating Capacity such that it can decrease or eliminate the amount of Power it requires from Hydro, then, provided the Customer gives Hydro thirty-six Month's written notice of the reduction, the Customer may reduce or eliminate its Amount of Power on Order and its Billing Demand effective on the date that the new generation is to go into service as indicated in that written notice.

ARTICLE 3
PURCHASE AND SALE OF POWER AND ENERGY

- 3.01 The sale and purchase of Power and Energy shall be at such prices and upon such terms and conditions as are set out in the Rate Schedules, this Agreement, and the Rules and Regulations.

- 3.02 Subject to Article 10, the Customer's Billing Demands, which shall each be charged at the applicable rates as approved by the Board, shall comprise the following:

- (a) the Billing Demand for Firm Power, which in each Month shall be either
 - (i) the Amount of Power on Order,
 - (ii) the lesser of 75% of the Amount of Power on Order for the prior calendar year and, the Amount of Power on Order for the prior calendar year less 15,000 kW,

or

- (iii) the Maximum Demand taken up to that time in that calendar year, less any Interruptible Demand, and Generation Outage Demand, if applicable,

whichever is greatest;

- (b) the maximum Interruptible Demand for that Month; and
- (c) the Generation Outage Demand as determined and calculated in accordance with Article 5.

- 3.03 Notwithstanding that the Billing Demand for Firm Power shall have, by operation of Clause 3.02, exceeded the Power on Order declared for that calendar year in accordance with Article 2, Hydro is not obliged to provide any amount of Power in excess of the Power on Order.
- 3.04 Notwithstanding anything to the contrary herein, the Customer shall pay in each Month its Specifically Assigned Charge, applicable Demand charges, and Energy charges. Its Energy charges shall comprise its Firm Energy and Non-Firm Energy taken in that Month.

ARTICLE 4
INTERRUPTIBLE DEMAND

- 4.01 In addition to its Power on Order, in any Month the Customer may take an amount of Interruptible Demand and Energy which shall be billed at the Non-Firm Demand and Energy rates approved by the Board. The amount of Interruptible Demand and Energy available shall be the lesser of 25% of the Power on Order and 5,000 kW. If Hydro is willing and able to serve the Customer's Interruptible Demand, then the following shall apply:
- (a) The Customer shall, if practicable, make a prior request for, or otherwise as soon as practicable notify Hydro of its requirement, specifying the amount and duration of its Interruptible Demand requirements. Such request or notification may be made by telephone and confirmed by facsimile transmission to Hydro's officials at its Energy Control Centre, who shall advise the Customer if such Interruptible Power will be made available.
 - (b) If serving the Customer's Interruptible Demand would result in Hydro generating from, or increasing or prolonging generation from a standby or emergency energy source, then Hydro will so advise the Customer. If the Customer wishes to purchase Interruptible Demand and Energy at such a time or times, that Power and Energy shall be charged for as calculated by the method or formula approved by the Board.
 - (c) Notwithstanding anything contrary herein, if service of the Interruptible Demand is disrupted by Hydro or is curtailed by the Customer as a decision to reject the more expensive standby or emergency energy source, the Billing Demand for Interruptible Power for the Month shall be determined in accordance with Clause 10.02.

ARTICLE 5
GENERATION OUTAGE POWER
AND SECONDARY ENERGY

- 5.01 In the event that the Customer experiences or requires a Generation Outage, in addition to its Power on Order and any applicable Interruptible Power it may be taking, it may take an amount of Generation Outage Demand and Energy at Non-Firm Rates. The availability of Generation Outage Demand shall be subject to Hydro's capability to deliver it, which Hydro shall determine at its sole discretion. The Generation Outage Demand taken in any instance shall not exceed the amount of generating capacity rendered unavailable because of the Generation Outage. If Hydro is willing and able to Provide the Customer with Generation Outage Demand and Energy, then the following shall apply:
- (a) The Customer shall, if practicable, make a prior request for, or otherwise as soon as practicable notify Hydro of its requirement, specifying the amount and duration of its Generation Outage Demand requirements. Such request or notification may be made by telephone and confirmed by facsimile transmission to Hydro's officials at its Energy Control Centre, who shall advise the Customer if such Generation Outage Demand will be made available. While requesting or taking Generation Outage Demand and Energy, the Customer shall notify Hydro of all circumstances and particulars as to the outage as soon as practicable and shall keep Hydro informed as those circumstances and particulars change. The Customer shall not make undue requests for Generation Outage Demand and Energy and it shall restore normal operating conditions as soon as reasonably possible.
 - (b) If serving the Generation Outage Demand would result in Hydro generating from, or increasing or prolonging generation from a standby or emergency energy source, then Hydro will so advise the Customer. If the Customer wishes to purchase Generation Outage Demand and Energy at such a time or times, that Power and Energy shall be charged for as calculated by the method or formula approved by the Board.
 - (c) Notwithstanding anything contrary herein, if service of the Generation Outage Demand is disrupted by Hydro or is curtailed by the Customer as a decision to reject the more expensive Energy provided from the standby or emergency energy source, the Billing Demand for the Generation Outage for that day shall be reduced in proportion to the number of hours in that day for which the more expensive energy was rejected.

(d) The Generation Outage Demand billed shall be based upon the Maximum Demand taken during a period when Generation Outage Demand was taken, less the Power on Order and maximum Interruptible Demand for that Month, and it shall be pro-rated as the number of days that Generation Outage Demand is taken in that Month to the total number of days in that Month.

5.02 If Hydro has surplus Energy capability and the Customer desires to purchase it, Hydro will deliver Secondary Energy to the Customer for use in its electric boilers, the quantity and availability of which shall be determined by Hydro in its sole discretion. The rate to be paid for Secondary Energy shall be determined by the Board.

ARTICLE 6
CHARACTERISTICS OF POWER SERVICE AND POINTS OF DELIVERY

6.01 The Power and Energy to be supplied under this Agreement will be delivered to the Customer at three (3) phase alternating current having normal frequencies of fifty (50) and sixty (60) cycles and at a voltage of approximately 66,000 and delivery will be made at the Hydro Delivery Points.

6.02 Hydro will exercise its best endeavours to limit variation from the normal frequency and voltage to tolerable values.

ARTICLE 7
POWER FACTOR

7.01 The Customer agrees to take and use the Power contracted for in this Agreement at a power factor of not less than ninety percent (90%) lagging at the point of delivery specified in this Agreement.

7.02 Should the power factor be consistently less than ninety percent (90%) lagging, the Customer, upon written notification from Hydro, agrees to install suitable corrective equipment to bring the power factor to a minimum of ninety percent (90%) lagging.

7.03 If the Customer should install static condensers to correct the lagging power factor, the equipment shall be so installed that it can be completely disconnected at the request of Hydro.

ARTICLE 8
METERING

- 8.01 The metering equipment and meters to register the amount of Demand and Energy to be taken by the Customer under this Agreement shall be furnished by Hydro and if required to be located on the Customer's premises will be installed by Hydro in a suitable place satisfactory to Hydro and provided by the Customer, and in such manner as to register accurately the total amount of Demand and Energy taken by the Customer under this Agreement.
- 8.02 If the metering is installed on the low side of transformers that are Specifically Assigned Plant or owned by the Customer, an appropriate adjustment will be made to account for losses in the transformers. Also, appropriate adjustments will be made to recognize the Power and Energy delivered to Newfoundland Power at Marble Mountain and Pasadena from the Customer's generation and transmission systems.
- 8.03 The Customer shall have the right, at its own expense, to install, equip and maintain check meters adjacent to the meters of Hydro.
- 8.04 Authorized employees of Hydro shall have the right of access to all such meters at all reasonable times for the purpose of reading, inspecting, testing, repairing or replacing them. Should any meter fail to register accurately, Hydro may charge for the Demand and Energy supplied during the period when the registration was inaccurate, either,
- (a) on the basis of the amount of Demand and Energy charged for
 - (i) during the corresponding term immediately succeeding or preceding the period of alleged inaccurate registration, or
 - (ii) during the corresponding term in the previous calendar year; or
 - (b) on the basis of the amount of Demand and Energy supplied as established by available evidence,

whichever basis appears most fair and accurate.

ARTICLE 9
LIABILITY FOR SERVICE

- 9.01 Subject to the provisions of the Rate Schedules, this Agreement, and the Rules and Regulations, the Power and Energy herein contracted for will be made

available for use by the Customer during twenty-four (24) hours on each and every day of the term of this Agreement.

- 9.02 The obligation of Hydro to furnish Power and Energy under this Agreement is expressly subject to all accidents or causes that may occur at any time and affect the generation or transmission of such Power and Energy, and in any such event, but subject to Clause 9.04, Hydro shall have the right in its discretion to reduce or, if necessary, to interrupt the supply of Power and Energy under this Agreement.
- 9.03 The Customer agrees that Hydro shall not be liable for loss or damage arising from any reduction or interruption of the supply of Power and Energy under this Agreement or for any loss or damage resulting from variations in the frequency or voltage of such supply.
- 9.04 Hydro agrees to take all reasonable precautions to prevent any reduction or interruption of the supply of Power and Energy or any variation in the frequency or voltage of such supply, and whenever any such reduction, interruption or variation occurs, Hydro shall use all reasonable diligence to restore its service promptly.
- 9.05 Hydro shall have the right, temporarily to interrupt its service hereunder in order to maintain or make necessary changes to its system, but, except in cases of emergency or accident, the service shall be interrupted only at such time or times as will be least inconvenient to the Customer, and Hydro shall use all reasonable diligence to complete promptly such repairs or necessary changes.

ARTICLE 10
REDUCED BILLING DEMAND

- 10.01 If at any time during the term of this Agreement the operation of the works of either party is suspended in whole or in part by reason of war, rebellion, civil disturbance, strikes, serious epidemics, fire or other fortuitous event, then, such party will not be liable to the other party to purchase or, as the case may be, to supply Power and Energy hereunder until the cause of such suspension has been removed and in every such event, the party whose operations are so suspended shall use all reasonable diligence to remove the cause of the suspension.
- 10.02 (1) For the purposes of this Clause 10.02 the expression “reduced Billing Demand” means the number of kilowatts to which the Billing Demand is reduced in any of the circumstances referred to in subclauses (2) or (3) of this Clause 10.02.

- (2) If the Customer is prevented from taking an amount of Power because of a suspension of its operations due to a reason listed in Clause 10.01, and any such interruption or reduction lasts for one hour or longer, then Hydro shall, on the request of the Customer, allow a proportionate reduction of the Billing Demand as calculated pursuant to subclauses (4) through (8) of this Clause 10.02, provided however that in no such case shall the Billing Demand be reduced below 0.85 of the Amount of Power on Order unless Hydro is unable to deliver Power and Energy in accordance with this Agreement.
- (3) If the supply of Power and Energy by Hydro is interrupted or reduced for any of the reasons referred to in Clause 9.02, 9.05 or 10.01, and any such interruption or reduction lasts for one hour or longer, then Hydro shall, on the request of the Customer, allow a proportionate reduction of the payment as calculated pursuant to subclauses (4) through (8) of this Clause 10.02.
- (4) If there is a total interruption of Power and Energy for a whole Month, the Customer shall not be required to make any payment for that Month.
- (5) If there is a total interruption of Power for part of a Month, the Billing Demand for that Month shall be reduced by a number of kilowatts bearing the same ratio to that Billing Demand as the number of hours during which the interruption occurs bears to the total number of hours in that Month.
- (6) If the reduction of Power is made for a whole Month, then, subject to clause (8) of this Clause 10.02, the reduced Billing Demand for that Month shall be substituted for the Billing Demand for the same Month, when determining the price of Power and Energy for that Month.
- (7) If the reduction of Power is made for part of a Month, then, subject to subclause (8) of this Clause 10.02, there shall, when determining the price of Power and Energy for the Months in which the reduction occurs, be substituted for the Billing Demand for that Month, the number of kilowatts obtained by adding
 - (a) the reduced Billing Demand for the part of the month during which the reduction was made, averaged over the whole of that Month;to
 - (b) the Billing Demand for the part of the Month during which no reduction was made, averaged over the whole of that Month.

- (8) In any case arising under subclause (6) or subclause (7) of this Clause 10.02, where a reduction of Power is made for a whole Month or part thereof and the Maximum Demand for that same period is greater than the reduced Billing Demand for that same period, then, instead of the reduced Billing Demand, the Maximum Demand for such period shall be substituted for the Billing Demand for that period when determining the price of Power and Energy for the Month in which the reduction occurs, but, if in any period during which a reduction occurs, the Maximum Demand is less than the reduced Billing Demand no account shall be taken of that Maximum Demand.
- (9) Where a Billing Demand, a reduced Billing Demand or a Maximum Demand for a part of a Month is to be averaged for the whole of that Month in accordance with subclause (7) of this Clause 10.02, the averaging shall be done by dividing the Billing Demand, the reduced Billing Demand or the Maximum Demand, as the case may be, by the total number of hours in the whole of that Month and multiplying the result by the number of hours to which the Billing Demand, the reduced Billing Demand or the Maximum Demand relates.
- (10) In addition to the reductions in Billing Demand that may be made in accordance with this Article 10, Hydro may, in its sole judgment and discretion, make other Billing Demand adjustments from time to time to decrease the Customer's bill to reflect unusual or unanticipated conditions or to facilitate the testing of equipment or processes by the Customer.

ARTICLE 11
CONSTRUCTION OR INSTALLATION OF
TRANSMISSION LINES OR APPARATUS

- 11.01 For the consideration aforesaid, the Customer hereby grants to Hydro the right to construct transmission lines and accessory apparatus on locations approved by the Customer on, under or over the property of the Customer for the purpose of serving the Customer and the other customers of Hydro, together with the right of access to the property of the Customer at all times for the construction of such lines and apparatus and for the repair, maintenance and removal thereof, provided that nothing in this clause shall entitle Hydro to construct transmission lines and accessory apparatus on or over the Customer's property if such transmission lines are not directly connected with the Customer's premises or some part thereof.
- 11.02 The Customer shall not erect any building, structure or object on or over any right-of-way referred to in Clause 11.01 without the written approval of Hydro, but subject to that limitation the Customer shall be entitled to make fair and reasonable use of all lands subjected to the said right-of-way.

- 11.03 Any changes that the Customer may request Hydro to make in the location of any lines or apparatus constructed pursuant to Clause 11.01, shall be made by Hydro, but the Customer shall bear the expense of any such changes to the extent that such lines or apparatus supply Power to the Customer.
- 11.04 All transmission lines and apparatus of Hydro furnished and installed by it on the Customer's premises shall remain the property of Hydro, and Hydro shall be entitled to remove such transmission lines and apparatus on the expiry or termination of this Agreement.
- 11.05 For the purpose of using the power service of Hydro, the Customer shall install properly designed and suitable apparatus in accordance with good engineering practice, and shall at all times operate and maintain such apparatus so as to avoid causing any undue disturbance on the system of Hydro, and so that the current shall be approximately equal on all three of its phases.
- 11.06 If, at any time, the unbalance in current between any two of its phases is, in the judgment of Hydro, excessive to a degree that the power supply system of Hydro and/or the electrical equipment of any other customer of Hydro is adversely affected, then it shall be the responsibility of the Customer to take such reasonable remedial measures as may be necessary to reduce the unbalance to an acceptable value.
- 11.07 If, at any time during the term of this Agreement, Hydro desires to improve the continuity of power service to any of its customers, Hydro and the Customer will co-operate and use their best endeavours to carry out the improvements either by changes to existing equipment or additions to the original installations of either Hydro or the Customer.
- 11.08 The Customer shall not proceed with the construction of or major alterations of its equipment or structures associated with any terminal substation at which Power and Energy is being delivered until Hydro is satisfied that the proposals for such construction or alteration are in accordance with good engineering practice and the laws and regulations of the Province, provided that any examination of the Customer's proposals by Hydro shall not render Hydro responsible in any way for the construction or alteration proposed, even if electrical connection is made by Hydro, whether or not any changes suggested by Hydro shall have been made by the Customer.

ARTICLE 12
RESPONSIBILITY FOR DAMAGES

- 12.01 Beyond the point of delivery, the Customer shall indemnify and hold Hydro harmless with respect to any and all claims that may be made for injuries or damages to persons or property caused in any manner by electric current or by the

- presence or use on the Customer's premises of electric circuits or apparatus, whether owned by Hydro or by the Customer, unless and to the extent that such injuries or damages are caused by negligence on the part of the employees of Hydro.
- 12.02 Up to the point of delivery, Hydro shall indemnify and hold the Customer harmless with respect to any and all claims that may be made for injuries or damages to persons or property caused in any manner by electric current or by the presence or use on the Customer's premises of electric circuits or apparatus owned by Hydro and resulting from or arising out of the negligence of Hydro's employees or other persons for whom Hydro would in law be liable, unless and to the extent that such injuries or damages are caused by negligence on the part of the employees of the Customer.
- 12.03 If any of the transmission lines or apparatus installed by Hydro on the Customer's premises should be destroyed or damaged by the negligence of the Customer, its servants or agents, the Customer shall reimburse Hydro for the cost of their replacement or repair.

ARTICLE 13
PAYMENT OF ACCOUNTS AND NOTICE OF CLAIMS OF CUSTOMER

- 13.01 Hydro will render its accounts monthly and the Customer shall, within twenty (20) days after the date of rendering any such account, make payment in lawful money of Canada at the office of Hydro in St. John's, Newfoundland, or in such other place in the said Province as Hydro may designate, without deduction for any claim or counterclaim which the Customer may have to claim to have against Hydro arising under this Agreement or otherwise.
- 13.02 All amounts in arrears after the expiration of the period of twenty (20) days referred to in Clause 13.01 shall bear interest at the rate of one and one-half (1-1/2%) percent per Month.
- 13.03 If the Customer is in default for more than thirty (30) days in paying any amount due Hydro under this Agreement, then, without prejudice to its other recourses and without liability therefor, Hydro shall, upon ten (10) days written notice to the Customer of its intention so to do, be entitled to suspend the supply of Power and Energy to the Customer until the said amount is paid, and if the supply is so suspended, the Customer shall not be relieved of its obligations under this Agreement.
- 13.04 The Customer and Hydro will submit to the other in writing every claim or counterclaim which each may have or claim to have against the other arising under this Agreement within sixty days of the day upon which the Customer or Hydro has knowledge of the event giving rise to such a claim.

- 13.05 The Customer and Hydro shall be deemed to have waived all rights for the recovery of any claim or counterclaim that has not been submitted to the other party pursuant to and in accordance with Clause 13.04.

ARTICLE 14
ARBITRATION

- 14.01 If a settlement of any claim made by the Customer in accordance with Clause 13.04 is not agreed to by both parties, the matters in dispute shall be submitted, within three months from the time the claim was submitted, for decision to a board of arbitrators consisting of three members, one to be named by each party to this Agreement and the third to be named by the two arbitrators so chosen, and the decision of any two members of the board of arbitrators shall be final and binding upon both parties.
- 14.02 The charges of the third member of a board of arbitrators who shall be the chairman of that board, shall be borne by the losing party, and the parties shall bear the costs or charges of their own appointees. Any arbitration hearing commenced under this Article shall be held in St. John's or such other place as the parties mutually agree.
- 14.03 If the two appointees of the parties are unable to agree upon the third arbitrator or chairman, the chairman shall be appointed upon application of either party to the Trial Division of the Supreme Court of Newfoundland or a judge of that Division.
- 14.04 The period of delay for appointment by the parties to this Agreement of their respective nominees shall be seven days after notification by the other party to this Agreement of its nominee, and the period for agreement by the two nominees on the chairman shall be ten days.
- 14.05 The provisions of the Arbitration Act, Chapter A - 14 of the Revised Statutes of Newfoundland, 1990, as now or hereafter amended shall apply to any arbitration held pursuant to this Article 14.
- 14.06 Unless both parties expressly waive the effect of this Clause 14.06, the provisions of this Article 14 from and including Clause 14.01 to and including Clause 14.05 shall not be applied to or in respect of any dispute involving or arising out of
- (a) the interpretation of this Agreement;
 - (b) any matter of law; or
 - (c) any matter of mixed fact and law.

ARTICLE 15
MODIFICATION OR TERMINATION OF AGREEMENT

- 15.01 Except, where otherwise specifically provided in this Agreement and only to the extent so provided, all previous communications between the parties to this Agreement, either oral or written, with reference to the subject matter of this Agreement, are hereby abrogated and this Agreement shall constitute the sole and complete agreement of the parties hereto in respect of the matters herein set forth.
- 15.02 At any time during the currency of this Agreement, the Customer may terminate it by giving to Hydro two years previous notice in writing of its intention so to do.
- 15.03 Any amendment, change or modification of this Agreement shall be binding upon the parties hereto or either of them only if such amendment, change or modification is in writing and is executed by each of the parties to this Agreement by its duly authorized officers or agents and in accordance with its regulations or by-laws.
- 15.04 Subject to Article 10, if the Customer voluntarily or forcibly abandons its operations, commits an act of bankruptcy or liquidates its assets, then, there shall, forthwith, become due and payable to Hydro by the Customer, as stipulated and liquidated damages without burden or proof thereof, a lump sum equal to:
- (a) 0.85 of its then current Billing Demand for Firm Power, at the Firm Power Demand rate, multiplied by 24;
plus
 - (b) the remaining net book value of Specifically Assigned Plant, less its salvage value.

ARTICLE 16
SUCCESSORS AND ASSIGNS

- 16.01 This Agreement shall be binding upon and enure to the benefit of the parties hereto and their respective successors and assigns, but it shall not be assignable by the Customer without the written consent of Hydro.

ARTICLE 17
GOVERNING LAW AND FORUM

- 17.01 This Agreement shall be governed by and interpreted in accordance with the laws of the Province, and every action or other proceeding arising hereunder shall be determined exclusively by a court of competent jurisdiction in the Province,

subject to the right of appeal to the Supreme Court of Canada where such appeal lies.

ARTICLE 18
ADDRESS FOR SERVICE

18.01 Subject to Clauses 18.02 and 18.03, any notice, request or other instrument which is required or permitted to be given, made or served under this Agreement by either of the parties hereto, except for notices or requests pertaining to Interruptible Demand, Generation Outages or Secondary Energy, shall be given, made or served in writing and shall be deemed to be properly given, made or served if personally delivered, or sent by prepaid telegram or facsimile transmission, or mailed by prepaid registered post, addressed, if service is to be made

(a) on Hydro, to

The Secretary
Newfoundland and Labrador Hydro
Hydro Place
P.O. Box 12400
St. John's, Newfoundland
CANADA. A1B 4K7
FAX: (709) 737-1782

or

(b) on the Customer, to

Mill Manager
Corner Brook Pulp and Paper Limited
P.O. Box 2001
Corner Brook, Newfoundland
A2H 6J4

18.02 Any notice, request or other instrument given, made or served as provided in Clause 18.01 shall be deemed to have been received by the party hereto to which it is addressed, if personally served on the date of delivery, or if mailed three days after the time of its being so mailed, or if sent by prepaid telegram or facsimile transmission, one day after the date of sending.

18.03 Except for notices for Interruptible Demand, Generation Outage Demand, or Secondary Energy, whenever this Agreement requires a notice to be given or a request to be made on a Sunday or legal holiday, such notice or request may be

given or made on the first business day occurring thereafter, and, whenever in this Agreement the time within which any right will lapse or expire shall terminate on a Sunday or legal holiday, such time will continue to run until the next succeeding business day. Notices or requests pertaining to Interruptible Demand, Generation Outages or Secondary Energy may be given and received by and to the appropriate nominees of the respective parties by voice or electronic communication provided that it is confirmed in writing and transmitted or delivered by facsimile, courier or mail as soon as practicable.

18.04 Either of the parties hereto may change the address to which a notice, request or other instrument may be sent to it by giving to the other party to this Agreement notice of such change, and thereafter, every notice, request or other instrument shall be delivered or mailed in the manner prescribed in Clause 18.01 to such party at the new address.

IN WITNESS WHEREOF Newfoundland and Labrador Hydro and the Customer has each executed this Agreement by causing it to be executed in accordance with its by-laws or regulations and by its duly authorized officers or agents, the day and year first above written.

THE CORPORATE SEAL of
Newfoundland and Labrador
Hydro was hereunder
affixed in the presence of:

Witness

DULY EXECUTED by
Corner Brook Pulp and Paper Limited
in accordance with its Regulations
or By-Laws in the presence of:

Witness

- (e) **“Electricity”** includes Power and Energy;
- (f) **“Energy”** means the amount of electricity delivered in a given period of time and measured in kilowatt hours;
- (g) **“Firm Energy”** means the Energy associated with the Firm Power;
- (h) **“Firm Power”** means, except as varied by paragraph 3.02(a) and subject to Clause 3.03, the Demand normally associated with the Amount of Power on Order;
- (i) **“Hydro Delivery Points”** means the 13,800 volt bus on Hydro’s transformers on the north side of the road adjacent to the Customer’s premises in Come By Chance;
- (j) **“Interruptible Demand”** means, that part of a Customer’s Demand which exceeds its Power on Order, which may be interrupted, in whole or in part, at the discretion of Hydro, and which is supplied to the Customer in accordance with Clause 5.01;
- (k) **“Maximum Demand”** means the greatest amount of Power averaged over a period of fifteen consecutive minutes during the appropriate month or part of a month, as the case may be, and measured by a demand meter of a type approved for revenue metering by the appropriate department of the Government of Canada;
- (l) **“Month”** means a calendar month;
- (m) **“Non-Firm Energy”** means Energy associated with Interruptible Demand;
- (n) **“Power”** means the amount of electrical power delivered at any time and measured in kilowatts;
- (o) **“Province”** means the the Province of Newfoundland;
- (p) **“Rate Schedules”** means the schedules of rates that are approved by the Board for the sale and purchase of Power and Energy;
- (q) **“Rules and Regulations”** means those rules and regulations which are set by the Board and which govern the sale of Power and Energy between Hydro and the Customer.
- (r) **“Secondary Energy”** means that Energy Hydro is willing to sell, according to Clause 4.01, at a rate approved by the Board and which, if not sold, would be surplus to its needs and likely to result in spillage at one or more of Hydro’s hydraulic generating stations;

- (s) **“Specifically Assigned Charge”** means the payment made by the Customer in each Month, calculated according to a method approved by the Board, for the use of Specifically Assigned Plant;
 - (t) **“Specifically Assigned Plant”** means that equipment and those facilities which are owned by Hydro and used to serve the Customer only;
-
- 1.02 Hydro and the Customer agree that they are bound by this Agreement and by the agreements and covenants contained in the Schedule of Rates and any Rules and Regulations that may be approved from time to time by the Board. In the event of a conflict between this Agreement, the Schedule of Rates, or the Rules and Regulations, the said documents shall be considered in the following order of priority, unless otherwise provided: the Rate Schedules, this Agreement, the Rules and Regulations.
 - 1.03 In this Agreement all references to dollar amounts and all references to any other money amounts are, unless specifically otherwise provided, expressed in terms of coin or currency of Canada which at the time of payment or determination shall be legal tender herein for the payment of public and private debts.
 - 1.04 Words in this Agreement importing the singular number shall include the plural and vice versa and words importing the masculine gender shall include the feminine and neuter genders.
 - 1.05 Where a word is defined anywhere in this Agreement, other parts of speech and tenses of the same word have corresponding meanings.
 - 1.06 Wherever in this Agreement a number of days is prescribed for any purpose, the days shall be reckoned exclusively of the first and inclusively of the last.
 - 1.07 The headings of all the articles are inserted for convenience of reference only and shall not affect the construction or interpretation of this Agreement.
 - 1.08 Any reference in this Agreement to an Article, a Clause, a subclause or a paragraph shall, unless the context otherwise specifically requires, be taken as a reference to an article, a clause, a subclause or a paragraph of this Agreement.
 - 1.09 This Agreement may be executed in two or more counterparts, each of which when so executed shall be deemed to be an original, but all of such counterparts together shall constitute one and the same instrument.

ARTICLE 2
AMOUNT OF FIRM POWER

- 2.01 Subject to this Agreement, Hydro agrees to deliver to the Customer and the Customer agrees to purchase from Hydro the Amount of Power on Order.
- 2.02 The Customer shall declare to Hydro in writing, not later than October 1 of each calendar year, its Amount of Power on Order for the following calendar year. Such declarations may provide for an Amount of Power on Order to apply throughout the calendar year, or may provide for one or more successive increases at specified times during the calendar year, but subject to Clause 2.05, may not provide for a decrease other than a decrease to take effect on January 1st of that following calendar year. The Amount of Power on Order shall in no event be greater than 45,000 kilowatts.
- 2.03 Hydro will supply all future Power requirements requested by the Customer additional to the 45,000 kilowatts provided, however, that the Customer's requests for such additional Power be made upon adequate notice in order that Hydro may make suitable extensions or additions to its system.
- 2.04 If Hydro cannot fully comply with a declaration of Amount of Power on Order made in accordance with Article 2.02 it will, as soon as practicable and in any event not later than November 1 of the year in which the declaration was made, advise the Customer of the extent to which it can comply.
- 2.05 If the Customer obtains a new source of electric generation such that it can decrease or eliminate the amount of Power it requires from Hydro, then, provided the Customer gives Hydro thirty-six Month's written notice of the reduction, the Customer may reduce or eliminate its Amount of Power on Order and its Billing Demand effective on the date that the new generation is to go into service as indicated in that written notice.

ARTICLE 3
PURCHASE AND SALE OF POWER AND ENERGY

- 3.01 The sale and purchase of Power and Energy shall be at such prices and upon such terms and conditions as are set out in the Rate Schedules, this Agreement, and the Rules and Regulations.
- 3.02 Subject to Clause 2.05 and Article 10, the Customer's Billing Demands, which shall each be charged at the applicable rates as approved by the Board, shall comprise the following:

- (a) the Billing Demand for Firm Power, which in each Month shall be either
 - (i) the Amount of Power on Order,
 - (ii) the lesser of 75% of the Amount of Power on Order for the prior calendar year and, the Amount of Power on Order for the prior calendar year less 15,000 kW,or
 - (iii) the Maximum Demand taken up to that time in that calendar year less any Interruptible Demand, if applicable,whichever is greatest; and
- (b) the maximum Interruptible Demand for that Month.

3.03 Notwithstanding that the Billing Demand for Firm Power shall have, by operation of Clause 3.02, exceeded the Power on Order declared for that calendar year in accordance with Article 2, Hydro is not obliged to provide any amount of Power in excess of the Power on Order.

3.04 Notwithstanding anything to the contrary herein, the Customer shall pay in each Month its Specifically Assigned Charge, applicable Demand charges, and Energy charges. Its Energy charges shall comprise its Firm Energy and Non-Firm Energy taken in that Month.

ARTICLE 4
SECONDARY ENERGY

4.01 If Hydro has surplus Energy capability and the Customer desires to purchase it, Hydro will deliver Secondary Energy to the Customer for use in its electric boilers, the quantity and availability of which shall be determined by Hydro in its sole discretion. The rate to be paid for Secondary Energy shall be determined by the Board.

ARTICLE 5
INTERRUPTIBLE DEMAND

5.01 In addition to its Power on Order, in any Month the Customer may take an amount of Interruptible Demand and Energy which shall be billed at the Non-Firm Demand and Energy rates approved by the Board. The amount of

Interruptible Demand and Energy available shall be the lesser of 25% of the Power on Order and 5,000 kW. If Hydro is willing and able to serve the Customer's Interruptible Demand, then the following shall apply:

- (a) The Customer shall, if practicable, make a prior request for, or otherwise as soon as practicable notify Hydro of its requirement, specifying the amount and duration of its Interruptible Demand requirements. Such request or notification may be made by telephone and confirmed by facsimile transmission to Hydro's officials at its Energy Control Centre, who shall advise the Customer if such Interruptible Power will be made available.
- (b) If serving the Customer's Interruptible Demand would result in Hydro generating from, or increasing or prolonging generation from a standby or emergency energy source, then Hydro will so advise the Customer. If the Customer wishes to purchase Interruptible Demand and Energy at such a time or times, that Power and Energy shall be charged for as calculated by the method or formula approved by the Board.
- (c) Notwithstanding anything contrary herein, if service of the Interruptible Demand is disrupted by Hydro or is curtailed by the Customer as a decision to reject the more expensive standby or emergency energy source, the Billing Demand for Interruptible Power for the Month shall be determined in accordance with Clause 10.02.

ARTICLE 6

CHARACTERISTICS OF POWER SERVICE AND POINTS OF DELIVERY

- 6.01 The Power and Energy to be supplied under this Agreement will be delivered to the Customer at three (3) phase alternating current having a normal frequency of sixty (60) cycles and at a voltage of approximately 13,800 volts and delivery will be made at the Hydro Delivery Points.
- 6.02 Hydro will exercise its best endeavours to limit variation from the normal frequency and voltage to tolerable values.

ARTICLE 7
POWER FACTOR

- 7.01 The Customer agrees to take and use the Power contracted for in this Agreement at a power factor of not less than ninety percent (90%) lagging at the point of delivery specified in this Agreement.
- 7.02 Should the power factor be consistently less than ninety percent (90%) lagging, the Customer, upon written notification from Hydro, agrees to install suitable corrective equipment to bring the power factor to a minimum of ninety percent (90%) lagging.
- 7.03 If the Customer should install static condensers to correct the lagging power factor, the equipment shall be so installed that it can be completely disconnected at the request of Hydro.

ARTICLE 8
METERING

- 8.01 The metering equipment and meters to register the amount of Demand and Energy to be taken by the Customer under this Agreement shall be furnished by Hydro and if required to be located on the Customer's premises will be installed by Hydro in a suitable place satisfactory to Hydro and provided by the Customer, and in such manner as to register accurately the total amount of Demand and Energy taken by the Customer under this Agreement.
- 8.02 If the metering is installed on the low voltage side of transformers that are Specifically Assigned Plant or owned by the Customer, an appropriate adjustment will be made to account for losses in the transformers.
- 8.03 The Customer shall have the right, at its own expense, to install, equip and maintain check meters adjacent to the meters of Hydro.
- 8.04 Authorized employees of Hydro shall have the right of access to all such meters at all reasonable times for the purpose of reading, inspecting, testing, repairing or replacing them. Should any meter fail to register accurately, Hydro may charge for the Demand and Energy supplied during the period when the registration was inaccurate, either,
 - (a) on the basis of the amount of Demand and Energy charged for
 - (i) during the corresponding term immediately succeeding or preceding the period of alleged inaccurate registration, or

- (ii) during the corresponding term in the previous calendar year; or
- (b) on the basis of the amount of Demand and Energy supplied as established by available evidence,

whichever basis appears most fair and accurate.

ARTICLE 9
LIABILITY FOR SERVICE

- 9.01 Subject to the provisions of the Rate Schedules, this Agreement, and the Rules and Regulations, the Power and Energy herein contracted for will be made available for use by the Customer during twenty-four (24) hours on each and every day of the term of this Agreement.
- 9.02 The obligation of Hydro to furnish Power and Energy under this Agreement is expressly subject to all accidents or causes that may occur at any time and affect the generation or transmission of such Power and Energy, and in any such event, but subject to Clause 9.04, Hydro shall have the right in its discretion to reduce or, if necessary, to interrupt the supply of Power and Energy under this Agreement.
- 9.03 The Customer agrees that Hydro shall not be liable for loss or damage arising from any reduction or interruption of the supply of Power and Energy under this Agreement or for any loss or damage resulting from variations in the frequency or voltage of such supply.
- 9.04 Hydro agrees to take all reasonable precautions to prevent any reduction or interruption of the supply of Power and Energy or any variation in the frequency or voltage of such supply, and whenever any such reduction, interruption or variation occurs, Hydro shall use all reasonable diligence to restore its service promptly.
- 9.05 Hydro shall have the right, temporarily to interrupt its service hereunder in order to maintain or make necessary changes to its system, but, except in cases of emergency or accident, the service shall be interrupted only at such time or times as will be least inconvenient to the Customer, and Hydro shall use all reasonable diligence to complete promptly such repairs or necessary changes.

ARTICLE 10
REDUCED BILLING DEMAND

- 10.01 If at any time during the term of this Agreement the operation of the works of either party is suspended in whole or in part by reason of war, rebellion, civil disturbance, strikes, serious epidemics, fire or other fortuitous event, then, such party will not be liable to the other party to purchase or, as the case may be, to supply Power and Energy hereunder until the cause of such suspension has been removed and in every such event, the party whose operations are so suspended shall use all reasonable diligence to remove the cause of the suspension.
- 10.02 (1) For the purposes of this Clause 10.02 the expression “reduced Billing Demand” means the number of kilowatts to which the Billing Demand is reduced in any of the circumstances referred to in subclauses (2) or (3) of this Clause 10.02.
- (2) If the Customer is prevented from taking an amount of Power because of a suspension of its operations due to a reason listed in Clause 10.01, and any such interruption or reduction lasts for one hour or longer, then Hydro shall, on the request of the Customer, allow a proportionate reduction of the Billing Demand as calculated pursuant to subclauses (4) through (8) of this Clause 10.02, provided however that in no such case shall the Billing Demand be reduced below 0.85 of the Amount of Power on Order unless Hydro is unable to deliver Power and Energy in accordance with this Agreement.
- (3) If the supply of Power and Energy by Hydro is interrupted or reduced for any of the reasons referred to in Clause 9.02, 9.05 or 10.01, and any such interruption or reduction lasts for one hour or longer, then Hydro shall, on the request of the Customer, allow a proportionate reduction of the payment as calculated pursuant to subclauses (4) through (8) of this Clause 10.02.
- (4) If there is a total interruption of Power and Energy for a whole Month, the Customer shall not be required to make any payment for that Month.
- (5) If there is a total interruption of Power for part of a Month, the Billing Demand for that Month shall be reduced by a number of kilowatts bearing the same ratio to that Billing Demand as the number of hours during which the interruption occurs bears to the total number of hours in that Month.
- (6) If the reduction of Power is made for a whole Month, then, subject to clause (8) of this Clause 10.02, the reduced Billing Demand for that

Month shall be substituted for the Billing Demand for the same Month, when determining the price of Power and Energy for that Month.

- (7) If the reduction of Power is made for part of a Month, then, subject to subclause (8) of this Clause 10.02, there shall, when determining the price of Power and Energy for the Months in which the reduction occurs, be substituted for the Billing Demand for that Month, the number of kilowatts obtained by adding
- (a) the reduced Billing Demand for the part of the month during which the reduction was made, averaged over the whole of that Month;
- to
- (b) the Billing Demand for the part of the Month during which no reduction was made, averaged over the whole of that Month.
- (8) In any case arising under subclause (6) or subclause (7) of this Clause 10.02, where a reduction of Power is made for a whole Month or part thereof and the Maximum Demand for that same period is greater than the reduced Billing Demand for that same period, then, instead of the reduced Billing Demand, the Maximum Demand for such period shall be substituted for the Billing Demand for that period when determining the price of Power and Energy for the Month in which the reduction occurs, but, if in any period during which a reduction occurs, the Maximum Demand is less than the reduced Billing Demand no account shall be taken of that Maximum Demand.
- (9) Where a Billing Demand, a reduced Billing Demand or a Maximum Demand for a part of a Month is to be averaged for the whole of that Month in accordance with subclause (7) of this Clause 10.02, the averaging shall be done by dividing the Billing Demand, the reduced Billing Demand or the Maximum Demand, as the case may be, by the total number of hours in the whole of that Month and multiplying the result by the number of hours to which the Billing Demand, the reduced Billing Demand or the Maximum Demand relates.
- (10) In addition to the reductions in Billing Demand that may be made in accordance with this Article 10, Hydro may, in its sole judgment and discretion, make other Billing Demand adjustments from time to time to decrease the Customer's bill to reflect unusual or unanticipated conditions or to facilitate the testing of equipment or processes by the Customer.

ARTICLE 11
CONSTRUCTION OR INSTALLATION OF
TRANSMISSION LINES OR APPARATUS

- 11.01 For the consideration aforesaid, the Customer hereby grants to Hydro the right to construct transmission lines and accessory apparatus on locations approved by the Customer on, under or over the property of the Customer for the purpose of serving the Customer and the other customers of Hydro, together with the right of access to the property of the Customer at all times for the construction of such lines and apparatus and for the repair, maintenance and removal thereof, provided that nothing in this clause shall entitle Hydro to construct transmission lines and accessory apparatus on or over the Customer's property if such transmission lines are not directly connected with the Customer's premises or some part thereof.
- 11.02 The Customer shall not erect any building, structure or object on or over any right-of-way referred to in Clause 11.01 without the written approval of Hydro, but subject to that limitation the Customer shall be entitled to make fair and reasonable use of all lands subjected to the said right-of-way.
- 11.03 Any changes that the Customer may request Hydro to make in the location of any lines or apparatus constructed pursuant to Clause 11.01 shall be made by Hydro, but the Customer shall bear the expense of any such changes to the extent that such lines or apparatus supply Power to the Customer.
- 11.04 All transmission lines and apparatus of Hydro furnished and installed by it on the Customer's premises shall remain the property of Hydro, and Hydro shall be entitled to remove such transmission lines and apparatus on the expiry or termination of this Agreement.
- 11.05 For the purpose of using the power service of Hydro, the Customer shall install properly designed and suitable apparatus in accordance with good engineering practice, and shall at all times operate and maintain such apparatus so as to avoid causing any undue disturbance on the system of Hydro, and so that the current shall be approximately equal on all three of its phases.
- 11.06 If, at any time, the unbalance in current between any two of its phases is, in the judgment of Hydro, excessive to a degree that the power supply system of Hydro and/or the electrical equipment of any other customer of Hydro is adversely affected, then it shall be the responsibility of the Customer to take such reasonable remedial measures as may be necessary to reduce the unbalance to an acceptable value.

- 11.07 If, at any time during the term of this Agreement, Hydro desires to improve the continuity of power service to any of its customers, Hydro and the Customer will co-operate and use their best endeavours to carry out the improvements either by changes to existing equipment or additions to the original installations of either Hydro or the Customer.
- 11.08 The Customer shall not proceed with the construction of or major alterations of its equipment or structures associated with any terminal substation at which Power and Energy is being delivered until Hydro is satisfied that the proposals for such construction or alteration are in accordance with good engineering practice and the laws and regulations of the Province, provided that any examination of the Customer's proposals by Hydro shall not render Hydro responsible in any way for the construction or alteration proposed, even if electrical connection is made by Hydro, whether or not any changes suggested by Hydro shall have been made by the Customer.

ARTICLE 12
RESPONSIBILITY FOR DAMAGES

- 12.01 Beyond the point of delivery, the Customer shall indemnify and hold Hydro harmless with respect to any and all claims that may be made for injuries or damages to persons or property caused in any manner by electric current or by the presence or use on the Customer's premises of electric circuits or apparatus, whether owned by Hydro or by the Customer, unless and to the extent that such injuries or damages are caused by negligence on the part of the employees of Hydro.
- 12.02 Up to the point of delivery, Hydro shall indemnify and hold the Customer harmless with respect to any and all claims that may be made for injuries or damages to persons or property caused in any manner by electric current or by the presence or use on the Customer's premises of electric circuits or apparatus owned by Hydro and resulting from or arising out of the negligence of Hydro's employees or other persons for whom Hydro would in law be liable, unless and to the extent that such injuries or damages are caused by negligence on the part of the employees of the Customer.
- 12.03 If any of the transmission lines or apparatus installed by Hydro on the Customer's premises should be destroyed or damaged by the negligence of the Customer, its servants or agents, the Customer shall reimburse Hydro for the cost of their replacement or repair.

ARTICLE 13
PAYMENT OF ACCOUNTS AND NOTICE OF CLAIMS OF CUSTOMER

- 13.01 Hydro will render its accounts monthly and the Customer shall, within twenty (20) days after the date of rendering any such account, make payment in lawful money of Canada at the office of Hydro in St. John's, Newfoundland, or in such other place in the said Province as Hydro may designate, without deduction for any claim or counterclaim which the Customer may have to claim to have against Hydro arising under this Agreement or otherwise.
- 13.02 All amounts in arrears after the expiration of the period of twenty (20) days referred to in Clause 13.01 shall bear interest at the rate of one and one-half (1-1/2%) percent per Month.
- 13.03 If the Customer is in default for more than thirty (30) days in paying any amount due Hydro under this Agreement, then, without prejudice to its other recourses and without liability therefor, Hydro shall, upon ten (10) days written notice to the Customer of its intention so to do, be entitled to suspend the supply of Power and Energy to the Customer until the said amount is paid, and if the supply is so suspended, the Customer shall not be relieved of its obligations under this Agreement.
- 13.04 The Customer and Hydro will submit to the other in writing every claim or counterclaim which each may have or claim to have against the other arising under this Agreement within sixty days of the day upon which the Customer or Hydro has knowledge of the event giving rise to such a claim.
- 13.05 The Customer and Hydro shall be deemed to have waived all rights for the recovery of any claim or counterclaim that has not been submitted to the other party pursuant to and in accordance with Clause 13.04.

ARTICLE 14
ARBITRATION

- 14.01 If a settlement of any claim made by the Customer in accordance with Clause 13.04 is not agreed to by both parties, the matters in dispute shall be submitted, within three months from the time the claim was submitted, for decision to a board of arbitrators consisting of three members, one to be named by each party to this Agreement and the third to be named by the two arbitrators so chosen, and the decision of any two members of the board of arbitrators shall be final and binding upon both parties.
- 14.02 The charges of the third member of a board of arbitrators who shall be the chairman of that board, shall be borne by the losing party, and the parties shall

- bear the costs or charges of their own appointees. Any arbitration hearing commenced under this Article shall be held in St. John's or such other place as the parties mutually agree.
- 14.03 If the two appointees of the parties are unable to agree upon the third arbitrator or chairman, the chairman shall be appointed upon application of either party to the Trial Division of the Supreme Court of Newfoundland or a judge of that Division.
- 14.04 The period of delay for appointment by the parties to this Agreement of their respective nominees shall be seven days after notification by the other party to this Agreement of its nominee, and the period for agreement by the two nominees on the chairman shall be ten days.
- 14.05 The provisions of the Arbitration Act, Chapter A - 14 of the Revised Statutes of Newfoundland, 1990, as now or hereafter amended shall apply to any arbitration held pursuant to this Article 14.
- 14.06 Unless both parties expressly waive the effect of this Clause 14.06, the provisions of this Article 14 from and including Clause 14.01 to and including Clause 14.05 shall not be applied to or in respect of any dispute involving or arising out of
- (a) the interpretation of this Agreement;
 - (b) any matter of law; or
 - (c) any matter of mixed fact and law.

ARTICLE 15
MODIFICATION OR TERMINATION OF AGREEMENT

- 15.01 Except, where otherwise specifically provided in this Agreement and only to the extent so provided, all previous communications between the parties to this Agreement, either oral or written, with reference to the subject matter of this Agreement, are hereby abrogated and this Agreement shall constitute the sole and complete agreement of the parties hereto in respect of the matters herein set forth.
- 15.02 At any time during the currency of this Agreement, the Customer may terminate it by giving to Hydro two years previous notice in writing of its intention so to do.
- 15.03 Any amendment, change or modification of this Agreement shall be binding upon the parties hereto or either of them only if such amendment, change or modification is in writing and is executed by each of the parties to this Agreement by its duly authorized officers or agents and in accordance with its regulations or by-laws.

- 15.04 Subject to Article 10, if the Customer voluntarily or forcibly abandons its operations, commits an act of bankruptcy or liquidates its assets, then, there shall, forthwith, become due and payable to Hydro by the Customer, as stipulated and liquidated damages without burden or proof thereof, a lump sum equal to:
- (a) 0.85 of its then current Billing Demand for Firm Power, at the Firm Power Demand charge, multiplied by 24
plus
 - (b) the remaining net book value of the Specifically Assigned Plant less its salvage value.

ARTICLE 16
SUCCESSORS AND ASSIGNS

- 16.01 This Agreement shall be binding upon and enure to the benefit of the parties hereto and their respective successors and assigns, but it shall not be assignable by the Customer without the written consent of Hydro.

ARTICLE 17
GOVERNING LAW AND FORUM

- 17.01 This Agreement shall be governed by and interpreted in accordance with the laws of the Province, and every action or other proceeding arising hereunder shall be determined exclusively by a court of competent jurisdiction in the Province, subject to the right of appeal to the Supreme Court of Canada where such appeal lies.

ARTICLE 18
ADDRESS FOR SERVICE

- 18.01 Subject to Clauses 18.02 and 18.03, any notice, request or other instrument which is required or permitted to be given, made or served under this Agreement by either of the parties hereto, except for notices or requests pertaining to Interruptible Demand or Secondary Energy, shall be given, made or served in writing and shall be deemed to be properly given, made or served if personally delivered, or sent by prepaid telegram or facsimile transmission, or mailed by prepaid registered post, addressed, if service is to be made

(a) on Hydro, to

The Secretary
Newfoundland and Labrador Hydro
Hydro Place
P.O. Box 12400
St. John's, Newfoundland
CANADA. A1B 4K7
FAX: (709) 737-1782

or

(b) on the Customer, to

President
North Atlantic refining Limited
P.O. Box 40
Come By Chance, Newfoundland
A0B 1N0

18.02 Any notice, request or other instrument given, made or served as provided in Clause 18.01 shall be deemed to have been received by the party hereto to which it is addressed, if personally served on the date of delivery, or if mailed three days after the time of its being so mailed, or if sent by prepaid telegram or facsimile transmission, one day after the date of sending.

18.03 Except for notices for Interruptible Demand or Secondary Energy, whenever this Agreement requires a notice to be given or a request to be made on a Sunday or legal holiday, such notice or request may be given or made on the first business day occurring thereafter, and, whenever in this Agreement the time within which any right will lapse or expire shall terminate on a Sunday or legal holiday, such time will continue to run until the next succeeding business day. Notices or requests pertaining to Interruptible Demand or Secondary Energy may be given and received by and to the appropriate nominees of the respective parties by voice or electronic communication provided that it is confirmed in writing and transmitted or delivered by facsimile, courier or mail as soon as practicable.

18.04 Either of the parties hereto may change the address to which a notice, request or other instrument may be sent to it by giving to the other party to this Agreement notice of such change, and thereafter, every notice, request or other instrument

shall be delivered or mailed in the manner prescribed in Clause 18.01 to such party at the new address.

IN WITNESS WHEREOF Newfoundland and Labrador Hydro and the Customer has each executed this Agreement by causing it to be executed in accordance with its by-laws or regulations and by its duly authorized officers or agents, the day and year first above written.

THE CORPORATE SEAL of
Newfoundland and Labrador
Hydro was hereunder
affixed in the presence of:

Witness

DULY EXECUTED by
North Atlantic Refining Limited
in accordance with its
Regulations or By-Laws
in the presence of:

Witness

**NEWFOUNDLAND AND
LABRADOR HYDRO
2002 CAPITAL BUDGET**

SUBMISSION TO PUBLIC UTILITIES BOARD

NEWFOUNDLAND AND LABRADOR HYDRO 2002 CAPITAL BUDGET

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**NEWFOUNDLAND AND LABRADOR HYDRO
2002 CAPITAL BUDGET**

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Section A

NEWFOUNDLAND & LABRADOR HYDRO

2002 CAPITAL BUDGET - OVERVIEW

(\$,000)

	Exp To 2001	2002	Future Years	Total
GENERATION	13	6,697	1,084	7,794
TRANSMISSION	631	16,527	192	17,350
RURAL SYSTEMS	570	8,129	1,057	9,756
GENERAL PROPERTIES	300	15,684	10,101	26,085
CONTINGENCY FUND	0	1,000		1,000
TOTAL CAPITAL BUDGET	<u>1,514</u>	<u>48,037</u>	<u>12,434</u>	<u>61,985</u>

NEWFOUNDLAND & LABRADOR HYDRO
2002 CAPITAL BUDGET - SUMMARY BY CATEGORY

(\$,000)

	Exp To 2001	2002	Future Years	Total	Page Ref.
GENERATION					
NEW GENERATION SOURCE					
Generation Projects	0	200	0	200	4
HYDRO PLANTS					
Construction Projects	13	4,721	0	4,734	4
Property Additions	0	164	0	164	4
Tools & Equipment	0	323	0	323	4
THERMAL PLANT					
Construction Projects	0	1,212	1,084	2,296	4
Tools & Equipment	0	77	0	77	4
					4
TOTAL GENERATION	13	6,697	1,084	7,794	
TRANSMISSION					
REGIONAL OPERATIONS					
Construction Projects	0	136	0	136	5
Property Additions	0	69	0	69	5
Tools & Equipment	0	207	0	207	5
SYSTEM SECURITY & RELIABILITY IMPROVEMENTS	631	15,673	192	16,496	5
SYSTEM PERFORMANCE & PROTECTION	0	442	0	442	5
TOTAL TRANSMISSION	631	16,527	192	17,350	

NEWFOUNDLAND & LABRADOR HYDRO

2002 CAPITAL BUDGET - SUMMARY BY CATEGORY

(\$,000)

	Exp To 2001	2002	Future Years	Total	Page Ref.
RURAL SYSTEMS					6
REGIONAL OPERATIONS					
Construction Projects	535	7,112	288	7,935	6
Property Additions	0	38	0	38	6
Tools & Equipment	0	199	0	199	7
MAJOR UPGRADING					
Power Plants	35	574	769	1,378	7
METERING	0	206	0	206	7
TOTAL RURAL SYSTEMS	<u>570</u>	<u>8,129</u>	<u>1,057</u>	<u>9,756</u>	
GENERAL PROPERTIES					8
INFORMATION SYSTEMS & TELECOMMUNICATIONS	300	13,685	10,101	24,086	8
ADMINISTRATIVE	0	1,999	0	1,999	9
TOTAL GENERAL PROPERTIES	<u>300</u>	<u>15,684</u>	<u>10,101</u>	<u>26,085</u>	
CONTINGENCY FUND	0	1,000		1,000	
TOTAL CAPITAL BUDGET	<u>1,514</u>	<u>48,037</u>	<u>12,434</u>	<u>61,985</u>	

**NEWFOUNDLAND & LABRADOR HYDRO
GENERATION
2002 CAPITAL BUDGET - DETAIL
(\$,000)**

PROJECT DESCRIPTION	Exp To 2001	2002	Future Years	Total	In-Service Date	Explanations Page Ref.
<u>NEW GENERATION SOURCE</u>						
<u>GENERATION PROJECTS</u>						
Perform Feasibility Study - Wind Request for Proposal		200		200	Jul. 02	B-7
TOTAL GENERATION PROJECTS	0	200	0	200		
<u>HYDRO PLANTS</u>						
<u>CONSTRUCTION PROJECTS</u>						
Replace Unit 1 Exciter - Cat Arm	13	863		876	Oct. 02	B-8
Replace Halon 1301 Fire Protection Systems for Generation System		697		697	Oct. 02	B-9
Install 25 kV Distribution Line - Ebbegunbaeg		1,555		1,555	Dec. 02	B-10
Replace Governor Controls - Upper Salmon		606		606	Oct. 02	B-11
Replace Piping on Surge Tank 3 - Bay D'Espoir		326		326	Aug. 02	B-12
Upgrade Controls on Spherical Valve #5 - Bay D'Espoir		153		153	Jul. 02	B-13
Install Fault Recorder - Upper Salmon Generating Station		127		127	Sep. 02	B-14
Install Intake Stoplogs - Paradise River		158		158	Aug. 02	B-15
Replace Control Cables - Bay D'Espoir		131		131	Jul. 02	B-16
Replace Sump Pump No. 2 at Powerhouse No. 1 - Bay D'Espoir		46		46	Jul. 02	
Purchase Security Surveillance System - Bay D'Espoir		35		35	Nov. 02	
Replace Trash Rack Differential System - Bay D'Espoir Intake		15		15	Sep. 02	
Install Frazil Ice Detection System - Intake #4 - Bay D'Espoir		9		9	Sep. 02	
TOTAL CONSTRUCTION PROJECTS	13	4,721	0	4,734		
<u>PROPERTY ADDITIONS</u>						
Replace Ventilation System at Powerhouse No.1 - Bay D'Espoir		164		164	Aug. 02	B-17
TOTAL PROPERTY ADDITIONS	0	164	0	164		
<u>TOOLS & EQUIPMENT</u>						
Purchase Track Machine - Cat Arm		177		177	Oct. 02	B-18
Purchase & Replace Tools & Equipment Less than \$ 50,000	0	146		146		
TOTAL TOOLS & EQUIPMENT	0	323	0	323		
<u>THERMAL PLANT</u>						
<u>CONSTRUCTION PROJECTS</u>						
Purchase and Install Continuous Emission Monitoring		801		801	Dec. 02	B-19
Upgrade Oil Systems for Fire Protection on Unit No.3 - Holyrood		225		225	Oct. 02	B-20
Purchase and Install Closed Circuit Surveillance System - Holyrood		152		152	Aug. 02	B-21
Replace Turbine Electrohydraulic Control System - Unit No. 1 - Holyrood		34	1,084	1,118	Aug. 03	B-22
TOTAL CONSTRUCTION PROJECTS	0	1,212	1,084	2,296		
<u>TOOLS & EQUIPMENT</u>						
Purchase & Replace Tools & Equipment Less than \$ 50,000	0	77	0	77		
TOTAL TOOLS & EQUIPMENT	0	77	0	77		
TOTAL GENERATION	13	6,697	1,084	7,794		

**NEWFOUNDLAND & LABRADOR HYDRO
TRANSMISSION
2002 CAPITAL BUDGET - DETAIL
(\$,000)**

PROJECT DESCRIPTION	Exp To 2001	2002	Future Years	Total	In-Service Date	Explanations Page Ref.
<u>REGIONAL OPERATIONS</u>						
<u>CONSTRUCTION PROJECTS</u>						
<u>CENTRAL REGION - TERMINALS</u>						
Replace Two Air Compressors - Buchans		65		65	Oct. 02	B-23
Replace Instrument Transformers/Surge Arrestors - Central		71		71	Dec. 02	B-24
TOTAL CENTRAL REGION - TERMINALS	0	136	0	136		
TOTAL CONSTRUCTION PROJECTS	0	136	0	136		
<u>PROPERTY ADDITIONS</u>						
<u>CENTRAL REGION</u>						
Pave Parking Area - Bishop's Falls Complex		69		69	Jul. 02	B-25
TOTAL PROPERTY ADDITIONS	0	69	0	69		
<u>TOOLS & EQUIPMENT</u>						
<u>CENTRAL REGION</u>						
Purchase & Replace Tools & Equipment Less than \$ 50,000	0	207	0	207		
TOTAL TOOLS & EQUIPMENT	0	207	0	207		
<u>SYSTEM SECURITY & RELIABILITY IMPROVEMENTS</u>						
Upgrade TL242 - (230kV Holyrood - Hardwoods)	461	8,525		8,986	Nov. 02	C-11
Upgrade TL236 - (230kV Hardwoods - Oxen Pond)	170	5,110		5,280	Nov. 02	C-12
Upgrade TL227 - (69kV Berry Hill - Daniels Harbour)		496		496	Sep. 02	B-26
Replacement of Insulators - TL226 - (69kV Deer Lake - Berry Hill)		224		224	Nov. 02	B-27
Replacement of Insulators - TL229 - (69kV Wiltondale - Glenburnie)		145		145	Nov. 02	B-28
Replacement of Insulators - TL211 (230kV Massey Drive - Bottom Brook)		570		570	Oct. 02	B-29
Replacement of Insulators - TL228 (230kV Buchans - Massey Drive)		450		450	Aug. 02	B-30
Replacement of Poles TL215 - (69kV Doyles - Port-Aux-Basques)		138		138	Sep. 02	B-31
Uprate of TL203- (230kV Sunnyside - Western Avalon)		15	192	207	Oct. 03	C-13
TOTAL SECURITY & RELIABILITY IMPROVEMENTS	631	15,673	192	16,496		
<u>SYSTEM PERFORMANCE & PROTECTION</u>						
Purchase and Install 230kV Recloser PLC Refit (L05L35) - Stony Brook T.S.		42		42	Oct. 02	
Purchase and Install Remote Communication Equipment - BUC & STB		51		51	Oct. 02	B-32
Purchase and Install Breaker Failure Protection Addition - BBK, WAV & HRD		229		229	Oct. 02	B-33
Purchase and Install Digital Fault Recorder - Stony Brook		92		92	Aug. 02	B-34
Purchase Metering Spares - Meter Shop - Hydro Place		28		28	Dec. 02	
TOTAL SYSTEM PERFORMANCE & PROTECTION	0	442	0	442		
TOTAL TRANSMISSION	631	16,527	192	17,350		

**NEWFOUNDLAND & LABRADOR HYDRO
RURAL SYSTEMS
2002 CAPITAL BUDGET - DETAIL
(\$,000)**

PROJECT DESCRIPTION	Exp To 2001	2002	Future Years	Total	In-Service Date	Explanations Page Ref.
<u>REGIONAL OPERATIONS</u>						
<u>CONSTRUCTIONS PROJECTS</u>						
<u>CENTRAL REGION - DISTRIBUTION</u>						
Provide Service Extensions - Central		331		331	Dec. 02	B-35
Upgrade Distribution Systems - Central		551		551	Dec. 02	B-36
Replace Poles - South Brook and King's Point System	26	173		199	Oct. 02	B-37
Replace Insulators - English Harbour West System		669		669	Sep. 02	B-38
Replace Insulators - South Brook System		317		317	Oct. 02	B-39
Replace Conductor/Poles - Burgeo		300		300	Oct. 02	B-40
Purchase and Install Voltage Regulators - Barchoix		112		112	Oct. 02	B-41
Replace Transformers - Burlington Substation		149		149	Oct. 02	B-42
<u>CENTRAL REGION - GENERATION</u>						
Replace 136kW Diesel Unit No. 278 - McCallum	220	56		276	Mar. 02	B-43
Replace 250kW Diesel Unit No. 2027 - McCallum	209	55		264	Mar. 02	B-44
Replace 136kW Diesel Unit No. 279 - Grey River	11	297		308	Dec. 02	B-45
Replace 136kW Diesel Unit No. 284 - Hr. Deep	11	282		293	Dec. 02	B-46
Replace 75kW Diesel Unit No. 252 - Petites	36	238		274	Dec. 02	B-47
<u>NORTHERN REGION - DISTRIBUTION</u>						
Provide Service Extensions - Northern		327		327	Dec. 02	B-35
Upgrade Distribution System - Northern		614		614	Dec. 02	B-36
Upgrade Distribution Lines - St. Anthony Distribution System		206		206	Nov. 02	B-48
Relocation of Line - Cook's Harbour		556		556	Oct. 02	B-49
Replace Corroded Transformers - Northern		276		276	Oct. 02	B-50
Upgrade Distribution Line - Goose Cove		87		87	Sep. 02	B-51
<u>NORTHERN REGION - GENERATION</u>						
Replace 136kW Diesel Unit No. 266 - Williams Harbour		11	288	299	Dec. 03	B-52
<u>LABRADOR REGION - DISTRIBUTION & TERMINALS</u>						
Provide Service Extensions - Labrador		323		323	Dec. 02	B-35
Upgrade Distribution Systems - Labrador		165		165	Dec. 02	B-36
Replace Battery Charger & Batteries System - Quartzite Substation - Lab. City		9		9	Oct. 02	
<u>LABRADOR REGION - GENERATION</u>						
Replace 300kW Diesel Unit No. 288 - Black Tickle	11	318		329	Dec. 02	B-53
Replace 250kW Diesel Unit No. 293 - Rigolet	11	301		312	Dec. 02	B-54
Upgrade Fuel Storage - Nain		339		339	Oct. 02	B-55
Purchase and Install Fire Alarm System - Black Tickle		50		50	Sep. 02	B-56
TOTAL CONSTRUCTION PROJECTS	535	7,112	288	7,935		
<u>LABRADOR REGION</u>						
Purchase Approved PCB Storage Container - Happy Valley		20		20	Aug. 02	
Construct Storage Shed - Rigolet		18		18	Oct. 02	
TOTAL PROPERTY ADDITIONS	0	38	0	38		

NEWFOUNDLAND & LABRADOR HYDRO
RURAL SYSTEMS
2002 CAPITAL BUDGET - DETAIL
(\$,000)

PROJECT DESCRIPTION	Exp To 2001	2002	Future Years	Total	In-Service Date	Explanations Page Ref.
<u>REGIONAL OPERATIONS</u>						
<u>TOOLS & EQUIPMENT</u>						
<u>CENTRAL REGION</u>						
Purchase & Replace Tools & Equipment Less than \$ 50,000	0	61	0	61		
<u>NORTHERN REGION</u>						
Purchase & Replace Tools & Equipment Less than \$ 50,000	0	85	0	85		
<u>LABRADOR REGION</u>						
Purchase & Replace Tools & Equipment Less than \$ 50,000	0	40	0	40		
<u>METERING</u>						
Purchase & Replace Tools & Equipment Less than \$ 50,000	0	13	0	13		
TOTAL TOOLS & EQUIPMENT	0	199	0	199		
<u>MAJOR UPGRADING</u>						
<u>POWER PLANTS</u>						
Upgrade Diesel Plant - Harbour Deep	35	515		550	Oct. 02	B-57
Upgrade Diesel Plant - St. Lewis		59	769	828	Oct. 03	B-58
TOTAL POWER PLANTS	35	574	769	1,378		
<u>METERING</u>						
Purchase Meters & Equipment - TRO System		172		172	Dec. 02	B-59
Purchase Metering Tanks - TRO System		34		34	Dec. 02	
TOTAL METERING	0	206	0	206		
TOTAL RURAL SYSTEMS	570	8,129	1,057	9,756		

NEWFOUNDLAND & LABRADOR HYDRO
GENERAL PROPERTIES
2002 CAPITAL BUDGET - DETAIL
(\$,000)

PROJECT DESCRIPTION	Exp To 2001	2002	Future Years	Total	In-Service Date	Explanations Page Ref.
<u>INFORMATION SYSTEMS & TELECOMMUNICATIONS</u>						
<u>SOFTWARE APPLICATIONS</u>						
<u>Infrastructure Replacement</u>						
Acquire Document Management & Imaging System		104		104	Dec. 02	B-60
<u>New Infrastructure</u>						
Purchase Additional Corporate Applications		517		517	Dec. 02	B-61
TOTAL SOFTWARE APPLICATIONS	0	621	0	621		
<u>COMPUTER OPERATIONS</u>						
<u>Infrastructure Replacement</u>						
Purchase and Install Uninterruptible Power Supply - Computer Room		70		70	Oct. 02	B-62
Replacement of Printers		130		130	Dec. 02	B-63
Replacement of AS400 Computers		2,109		2,109	May. 02	B-64
<u>New Infrastructure</u>						
Provide Three LCD Projectors - Hydro Place		39		39	May. 02	
<u>Upgrade of Technology</u>						
Replacement of Desktop Peripherals		18		18	Oct. 02	
TOTAL COMPUTER OPERATIONS	0	2,366	0	2,366		

NEWFOUNDLAND & LABRADOR HYDRO
GENERAL PROPERTIES
2002 CAPITAL BUDGET - DETAIL
(\$,000)

PROJECT DESCRIPTION	Exp To 2001	2002	Future Years	Total	In-Service Date	Explanations Page Ref.
<u>INFORMATION SYSTEMS & TELECOMMUNICATIONS</u>						
<u>NETWORK SERVICES</u>						
<u>Infrastructure Replacement</u>						
Replace Powerline Carrier Equipment - Transmission System - West Coast	300	651	1,428	2,379	Dec. 04	B-65
Replace VHF Mobile Radio System		8,373		8,373	Dec. 02	B-66
Replace Teleprotection - Stony Brook - Grand Falls Frequency Converter		58		58	Dec. 02	B-67
Replace UHF Radio - Upper Salmon		556		556	Dec. 02	B-68
Complete Microwave Radio System Interconnection		269	8,673	8,942	Dec. 03	B-69
Replace Remote Terminal Unit for Hydro - Phase 3		311		311	Oct. 02	B-70
<u>Upgrade of Technology</u>						
Provide Global Positioning System Time Synchronization - Phase 2		211		211	Dec. 02	B-71
Install Interactive Voice Response System - Hydro Place		171		171	Dec. 02	B-72
Replace Telephone Isolation Equipment - Sunnyside & Western Avalon		52		52	Oct. 02	B-73
Upgrade Site Grounding at Telecontrol Site - Phase 3		46		46	Oct. 02	
TOTAL NETWORK SERVICES	300	10,698	10,101	21,099		
TOTAL INFORMATION SYSTEMS & TELECOMMUNICATIONS	300	13,685	10,101	24,086		
<u>ADMINISTRATIVE</u>						
<u>VEHICLES</u>						
Replace Vehicles		1,897		1,897	Dec. 02	B-74
<u>ADMINISTRATION</u>						
Purchase & Replace Admin Office Equip less than \$50,000	0	102		102		
TOTAL ADMINISTRATIVE	0	1,999	0	1,999		
TOTAL GENERAL PROPERTIES	300	15,684	10,101	26,085		

Section B

NEWFOUNDLAND & LABRADOR HYDRO**2002 CAPITAL BUDGET****PROJECTS OVER \$50,000 - OVERVIEW
(\$,000)**

	Exp To 2001	2002	Future Years	Total
GENERATION	13	6,369	1,084	7,466
TRANSMISSION	0	2,600	0	2,600
RURAL SYSTEMS	570	7,849	1,057	9,476
GENERAL PROPERTIES	300	15,479	10,101	25,880
CONTINGENCY FUND		1,000		1,000
	_____	_____	_____	_____
TOTAL CAPITAL BUDGET	<u>883</u>	<u>33,297</u>	<u>12,242</u>	<u>46,422</u>

NEWFOUNDLAND & LABRADOR HYDRO
GENERATION
2002 CAPITAL BUDGET - PROJECTS OVER \$50,000 BY CATEGORY
(\$,000)

PROJECT DESCRIPTION	Exp To 2001	2002	Future Years	Total	In-Service Date	Explanations
						Page Ref.
Perform Feasibility Study - Wind Request for Proposal		200		200	Jul. 02	B-7
Replace Unit 1 Exciter - Cat Arm	13	863		876	Oct. 02	B-8
Replace Halon 1301 Fire Protection Systems for Generation System		697		697	Oct. 02	B-9
Install 25 kV Distribution Line - Ebbegunbaeg		1,555		1,555	Dec. 02	B-10
Replace Governor Controls - Upper Salmon		606		606	Oct. 02	B-11
Replace Piping on Surge Tank 3 - Bay D' Espoir		326		326	Aug. 02	B-12
Upgrade Controls - Spherical Valve #5 - Bay D'Espoir		153		153	Jul. 02	B-13
Install Fault Recorder - Upper Salmon Generating Station		127		127	Sep. 02	B-14
Install Intake Stoplogs - Paradise River		158		158	Aug. 02	B-15
Replace Control Cables - Bay D' Espoir		131		131	Jul. 02	B-16
Replace Ventilation System at Powerhouse No.1 - Bay D' Espoir		164		164	Aug. 02	B-17
Purchase Track Machine - Cat Arm		177		177	Oct. 02	B-18
Purchase and Install Continuous Emission Monitoring		801		801	Dec. 02	B-19
Upgrade Oil Systems for Fire Protection on Unit No.3 - Holyrood		225		225	Oct. 02	B-20
Purchase and Install Closed Circuit Surveillance System - Holyrood		152		152	Aug. 02	B-21
Replace Turbine Electrohydraulic Control System - Unit No. 1 - Holyrood		34	1,084	1,118	Aug. 03	B-22
TOTAL GENERATION	13	6,369	1,084	7,466		

NEWFOUNDLAND & LABRADOR HYDRO
TRANSMISSION
2002 CAPITAL BUDGET - PROJECTS OVER \$50,000 BY CATEGORY
(\$,000)

PROJECT DESCRIPTION				Explanations		
	Exp To 2001	2002	Future Years	Total	In-Service Date	Page Ref.
Replace Two Air Compressors - Buchans		65		65	Oct. 02	B-23
Replace Instrument Transformers/Surge Arrestors - Central		71		71	Dec. 02	B-24
Pave Parking Area - Bishop's Falls Complex		69		69	Jul. 02	B-25
Upgrade TL227 - (69kV Berry Hill - Daniels Harbour)		496		496	Sep. 02	B-26
Replacement of Insulators - TL226 - (69kV Deer Lake - Berry Hill)		224		224	Nov. 02	B-27
Replacement of Insulators - TL229 - (69kV Wiltondale - Glenburnie)		145		145	Nov. 02	B-28
Replacement of Insulators - TL211 (230kV Massey Drive - Bottom Brook)		570		570	Oct. 02	B-29
Replacement of Insulators - TL228 (230kV Buchans - Massey Drive)		450		450	Aug. 02	B-30
Replacement of Poles TL215 - (69kV Doyles - Port-Aux-Basques)		138		138	Sep. 02	B-31
Purchase and Install Remote Communication Equipment - BUC & STB		51		51	Oct. 02	B-32
Purchase and Install Breaker Failure Protection Addition - BBK, WAV & HRD		229		229	Oct. 02	B-33
Purchase and Install Digital Fault Recorder - Stony Brook		92		92	Aug. 02	B-34
TOTAL TRANSMISSION	0	2,600	0	2,600		

NEWFOUNDLAND & LABRADOR HYDRO
RURAL SYSTEMS
2002 CAPITAL BUDGET - PROJECTS OVER \$50,000 BY CATEGORY
(\$,000)

PROJECT DESCRIPTION				Total	In-Service Date	Explanations Page Ref.
	Exp To 2001	2002	Future Years			
Provide Service Extensions - Central		331		331	Dec. 02	B-35
Upgrade Distribution Systems - Central		551		551	Dec. 02	B-36
Replace Poles - South Brook and King's Point System	26	173		199	Oct. 02	B-37
Replace Insulators - English Harbour West System		669		669	Sep. 02	B-38
Replace Insulators - South Brook System		317		317	Oct. 02	B-39
Replace Conductor/Poles - Burgeo		300		300	Oct. 02	B-40
Purchase and Install Voltage Regulators - Barachoix		112		112	Oct. 02	B-41
Replace Transformers - Burlington Substation		149		149	Oct. 02	B-42
Replace 136kW Diesel Unit No. 278 - McCallum	220	56		276	Mar. 02	B-43
Replace 250kW Diesel Unit No. 2027 - McCallum	209	55		264	Mar. 02	B-44
Replace 136kW Diesel Unit No. 279 - Grey River	11	297		308	Dec. 02	B-45
Replace 136kW Diesel Unit No. 284 - Hr. Deep	11	282		293	Dec. 02	B-46
Replace 75kW Diesel Unit No. 252 - Petites	36	238		274	Dec. 02	B-47
Provide Service Extensions - Northern		327		327	Dec. 02	B-35
Upgrade Distribution System - Northern		614		614	Dec. 02	B-36
Upgrade Distribution Lines - St. Anthony Distribution System		206		206	Nov. 02	B-48
Relocation of Line - Cook's Harbour		556		556	Oct. 02	B-49
Replace Corroded Transformers - Northern		276		276	Oct. 02	B-50
Upgrade Distribution Line - Goose Cove		87		87	Sep. 02	B-51
Provide Service Extensions - Labrador		323		323	Dec. 02	B-35
Upgrade Distribution Systems - Labrador		165		165	Dec. 02	B-36
Replace 136kW Diesel Unit No. 266 - Williams Harbour		11	288	299	Dec. 03	B-52
Replace 300kW Diesel Unit No. 288 - Black Tickle	11	318		329	Dec. 02	B-53
Replace 250kW Diesel Unit No. 293 - Rigolet	11	301		312	Dec. 02	B-54
Upgrade Fuel Storage - Nain		339		339	Oct. 02	B-55
Purchase and Install Fire Alarm System - Black Tickle		50		50	Sep. 02	B-56
Upgrade Diesel Plant - Harbour Deep	35	515		550	Oct. 02	B-57
Upgrade Diesel Plant - St. Lewis		59	769	828	Oct. 03	B-58
Purchase Meters & Equipment - TRO System		172		172	Dec. 02	B-59
TOTAL RURAL SYSTEMS	570	7,849	1,057	9,476		

NEWFOUNDLAND & LABRADOR HYDRO
GENERAL PROPERTIES
2002 CAPITAL BUDGET - PROJECTS OVER \$50,000 BY CATEGORY
(\$,000)

PROJECT DESCRIPTION	Exp To 2001	2002	Future Years	Total	In-Service Date	Explanations Page Ref.
Acquire Document Management & Imaging System		104		104	Dec. 02	B-60
Purchase Additional Corporate Applications		517		517	Dec. 02	B-61
Purchase and Install Uninterruptible Power Supply - Computer Room		70		70	Oct. 02	B-62
Replacement of Printers		130		130	Dec. 02	B-63
Replacement of AS400 Computers		2,109		2,109	May. 02	B-64
Replace Powerline Carrier Equipment - Transmission System - West Coast	300	651	1,428	2,379	Dec. 04	B-65
Replace VHF Mobile Radio System		8,373		8,373	Dec. 02	B-66
Replace Teleprotection - Stony Brook - Grand Falls Frequency Converter		58		58	Dec. 02	B-67
Replace UHF Radio - Upper Salmon		556		556	Dec. 02	B-68
Complete Microwave Radio System Interconnection		269	8,673	8,942	Dec. 03	B-69
Replace Remote Terminal Unit for Hydro - Phase 3		311		311	Oct. 02	B-70
Provide Global Positioning System Time Synchronization - Phase 2		211		211	Dec. 02	B-71
Install Interactive Voice Response System - Hydro Place		171		171	Dec. 02	B-72
Replace Telephone Isolation Equipment - Sunnyside & Western Avalon		52		52	Oct. 02	B-73
Replace Vehicles		1,897		1,897	Dec. 02	B-74
TOTAL GENERAL PROPERTIES	300	15,479	10,101	25,880		

Projects Over \$50,000 Commentary

B-6

The following pages of explanations have been prepared in order to provide additional information on projects in 2002 that are estimated to cost more than \$50,000.

The pages, B-7 to B-74 are divided into four categories as outlined below.

- ▶ Generation
- ▶ Transmission
- ▶ Rural Systems
- ▶ General Properties

Many of the explanations refer to “Cost Benefit Studies” and it should be recognized that because of the nature of the individual project, not all decisions to proceed are supported by formal cost benefit studies. For example, where the level of safety or the reliability of service to customers would be clearly jeopardized if a project did not proceed, a formal cost benefit study would not be required to support the decision to proceed. There is really no alternative but to proceed. The majority of projects included in Hydro’s 2002 Capital Budget have no formal cost benefit studies supporting the decisions to proceed. These projects are required for one or more of the following reasons:

- ◆ to protect human life,
- ◆ to meet projected customer load demand,
- ◆ to prevent imminent interruption of customer service,
- ◆ to comply with pertinent regulations, standards, etc.
- ◆ to protect Hydro’s assets against loss or damage, and
- ◆ to maintain power system reliability and availability

Notwithstanding this, however, before actual construction or implementation of a project is started, engineering analysis is undertaken to ensure that the most appropriate technical and cost-effective solution has been identified. Further, where there are a number of technically acceptable alternatives to address a particular problem or when implementation of a new alternative may offer cost advantages over an existing condition, cost-effectiveness analyses are performed.

GENERATION:

Perform Feasibility Study - Wind Request for Proposals (\$200,000)

Nature of Project

This project involves an assessment of the feasibility of wind generation to supply electric power and energy on the Island of Newfoundland. This assessment is to be conducted through a two-stage process comprised of a stage-one feasibility study and a potential demonstration project at stage-two. If the demonstration project should proceed, the cost of the feasibility study will be included by the Proponent into the cost of the project. If the project does not proceed then Hydro will reimburse the Proponent for the cost of the feasibility study.

Customer Impact

This study is initiated to provide Hydro with information on whether the Province's wind resources can provide customers with a low cost and environmentally friendly source of energy.

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 Unit 1 Exciter - Cat Arm (Previous \$13,000; \$863,000)

Nature of Project

This project (as previously approved by the PUB) involves the purchase, installation and commissioning of a new static exciter for Cat Arm Unit 1. The original exciter was installed in 1984 and is no longer supported by the equipment manufacturer. Critical spare parts for the existing exciter are not available from the manufacturer.

Customer Impact

Failure to complete this work will result in increased unit unavailability, thus impacting power supply to our customers.

Cost Benefit Study

A formal cost benefit study was not required.

Future Commitments

This is a two-year project. The engineering will be completed in 2001 and installation will be completed in 2002. There are no future commitments.

GENERATION:

Replace Halon 1301 Fire Protection Systems for Generation System (\$697,000)

Nature of Project

This project involves the replacement of all remaining halon fire suppression systems in accordance with Hydro's *Strategic Plan for Phase-Out and Replacement of Halons*. (This plan was prepared as a requirement of the provincial *Ozone Depleting Substance Regulations* and has been approved by the provincial Department of Environment and Labour). Phase 1 of the program was completed in 2000 and Phase 2 is being implemented in 2001. The remaining systems are scheduled for replacement in the third and final phase of the program in 2002. Replacement fire protection systems will meet criteria for performance, health and safety, and environmental acceptability and shall include new control, alarm and detection devices where necessary.

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:

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:

Replace Governor Controls - Upper Salmon (\$606,000)

Nature of Project

This project involves the replacement of Woodward governor controls at the Upper Salmon Generating Plant that was commissioned in 1982. A product rationalization by the manufacturer has determined that they are unable to support this version due to a lack of spare parts.

Customer Impact

The loss of the governor will cause extended generator outage and may impact the 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 Piping Surge Tank 3 - Bay d'Espoir (\$326,000)

Nature of Project

This project involves the replacement of the existing hot water piping system on Surge Tank No. 3 at Bay d'Espoir. The work consists of the replacement of the piping, insulation, distribution ring and the protective weather housing. The purpose of the hot water system is to prevent ice pan formation in the surge tanks which can cause severe turbine/penstock damage.

Customer Impact

Failure to perform this work will result in prolonged damage to the penstocks and the generating equipment, Units 5 and 6, at the Bay d'Espoir plant due to the inability of the equipment to absorb excessive hydraulic surges. This would result in a prolonged outage and hence higher cost to consumers.

Cost Benefit Study

A formal cost benefit study is not required.

Future Commitments

There are no future commitments, this project will be completed in 2002.

GENERATION:

Upgrade Controls on Spherical Valve #5 - Bay d'Espoir (\$153,000)

Nature of Project

This project involves the replacement of obsolete equipment in the Bay d'Espoir Unit #5 spherical valve control system. The work on this unit consists of replacement of main servomotor 4-way valve, pilot valves, controls piping, and replacement of mechanical controls with a new Program Logic Controller.

Customer Impact

Failure to perform this work could adversely affect the operation and availability of the unit and impact the 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:

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_x, SO_x 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:

Upgrade Oil Systems for Fire Protection on Unit No. 3 - Holyrood (\$225,000)

Nature of Project

This project involves the installation of containment dykes and the upgrade of sprinkler piping on Unit No. 3 lube oil, seal oil, and heavy oil systems, as recommended by Hydro's Insurers. Completion of this project will contain potential oil spills, and prevent spread of any resulting fire between major equipment and units.

Customer Impact

Failure to complete this work could result in major property damage and 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.

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:

Replace Two Air Compressors - Buchans (\$65,000)

Nature of Project

This project involves the replacement of two air compressors at the Buchans Terminal Station.

The existing compressors will be 29 years old in 2002. The compressors have deteriorated to the point where excessive air leaks and running time will threaten system reliability.

Customer Impact

The replacement of these compressors will help maintain system reliability.

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:

Replace Instrument Transformers/Surge Arrestors - Central (\$71,000)

Nature of Project

This project involves the replacement of instrument transformers / surge arrestors. Each year a number of high voltage current and potential transformers and surge arrestors are required to be replaced. These units are identified for replacement either through field tests, which indicate that failure is imminent, or by actual failure in service.

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

This is a yearly allotment which will be adjusted from year to year depending on historic information.

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:

Upgrade - TL227 - (69kV Berry Hill - Daniel's Harbour) (\$496,000)

Nature of Project

This project is the second phase of a program to upgrade TL227 on the Great Northern Peninsula.

This 85 km, 30-year-old 69kV line from Berry Hill Terminal Station to Daniel's Harbour Terminal Station operates in a severe salt spray environment. An investigation of this line identified 25 kilometers requiring upgrading. 15km of line upgrading was approved in Hydro's 2001 Capital Budget, including the replacement of 680 suspension insulators and 543 post insulators. The 2002 project will involve upgrading 10km of this line, and the replacement of 219 insulators, 74 poles, and 10 km of conductor. TL 227 has a total of 5,400 suspension and 3,100 post type insulators.

From 1995 to 2000 this line experienced two (2) momentary outages of less than one minute and 25 sustained outages of greater than one minute.

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:

Replacement of Insulators - TL226 (69kV Deer Lake - Berry Hill) (\$224,000)

Nature of Project

This project involves the replacement of insulators on a 78 km, 30-year-old 69kV line from Deer Lake Terminal Station to Berry Hill Terminal Station. The predominant outage causes on this line are high winds and defective equipment.

Approximately 65 outages were experienced between 1990 and 1999; 16 were caused by defective insulators; and high winds accounted for an additional 16 outages. The majority of the insulator failures was on the dead-end and angle structures. The total insulators on this line are 5,400 suspension and 2,200 post type. This project will replace 2000 suspension insulators in critical areas.

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

This project will be completed in 2002, however the investigation into the outages due to high winds may result in future commitments.

TRANSMISSION:

Replacement of Insulators - TL229 (69kV Wiltondale - Glenburnie) (\$145,000)

Nature of Project

This project involves the replacement of insulators on this 35 km, 25-year-old 69 kV line from Glenburnie Terminal Station to Wiltondale Terminal Station. An insulator inspection and testing program demonstrated deteriorating insulator conditions that will result in mechanical stress failures. This line has a total of 2,100 suspension and 735 post type insulators. This project will replace 1050 suspension insulators.

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:

Replacement of Insulators - TL211 (230kV Massey Drive - Bottom Brook) (\$570,000)

Nature of Project

This project involves the replacement of insulators on the 56 km, 34-year-old 230 kV line from Massey Drive Terminal Station to Bottom Brook Terminal Station. In 2000 an inspection and testing program on a 6% sampling of insulators revealed an increase in defective insulators. These Canadian Ohio Brass (COB) insulators manufactured prior to 1974, experience failures due to cement growth causing radial cracks leading to moisture ingress. This project will replace all 6700 insulators.

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:

Replacement of Insulators - TL228 (230kV Buchans - Massey Drive) (\$450,000)

Nature of Project

This project involves the replacement of insulators on the 85 km, 34-year-old 230 kV line from Buchans Terminal Station to Massey Drive Terminal Station. In 2000 an insulator inspection and testing program on a 20% sampling revealed a failure rate of 10% in defective insulators. These Canadian Ohio Brass (COB) insulators manufactured prior to 1974 experience failures due to cement growth causing radial cracks leading to moisture ingress. This project will replace 3,700 insulators, which completes a total replacement program of 13,500 insulators.

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:

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 Breaker Failure Protection Addition - Bottom Brook, Western Avalon & Holyrood (\$229,000)

Nature of Project

This project involves the purchase and installation of a 138 kV breaker failure protection at Bottom Brook, Western Avalon and Holyrood Terminal Stations. This is comprised of a new panel at each station for each of 138 kV breakers.

Customer Impact

The installation of this protection will mitigate severe breaker damage and improve reliability.

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.

RURAL SYSTEMS:

Provide Service Extensions - Central, Northern and Labrador (\$981,000)

Nature of Project

This project is a yearly allotment based on past expenditures to provide service connections (including street lights) to new customers. This summary identifies the total budget allotment for all regions even though the Capital Budget is presented by individual region.

For the period 1996 to 2000, the total actual expenditures for all regions averaged \$1,206,000. The Capital Budget for all regions for 2002 is \$981,000.

Customer Impact

This project will facilitate the connection of new customers.

Cost Benefit Study

A formal cost benefit study was not required.

Future Commitments

This is a yearly allotment, which will be adjusted from year to year depending on historic information.

RURAL SYSTEMS:

Upgrade Distribution Systems - Central, Northern and Labrador (\$1,330,000)

Nature of Project

This project involves the upgrade of distribution lines and equipment to maintain a safe and reliable distribution system. Typical items covered are replacement of poles, streetlights, conductors, transformers, voltage regulators, etc., which are replaced due to substandard conditions. This summary identifies the total budget allotment for all regions even though the Capital Budget is presented by individual region.

For the period 1996 to 2000, the total actual expenditures for all regions averaged \$1,438,000. The Capital Budget for all regions for 2002 is \$1,330,000.

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

This is a yearly allotment, which will be adjusted from year to year depending on historic information.

RURAL SYSTEMS:

Replace Poles - South Brook and King's Point System (Previous \$26,000; \$173,000)

Nature of Project

This project (as previously approved by the PUB) involves the replacement of poles on the South Brook and King's Point System. Hydro's inspection program identified forty (40) poles on this system, which have deteriorated and are approaching the end of their useful life. The age of these poles range from 31 to 36 years.

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.

RURAL SYSTEMS:

Replace Insulators - English Harbour West (\$669,000)

Nature of Project

This project involves the replacement of insulators in the English Harbour West area. The line from English Harbour West to Belleoram / Coombs Cove has experienced major outages due to insulator problems. These outages of 20-minute to 4-hour duration have affected an average of 550 customers.

The Canadian Ohio Brass (COB) insulators manufactured prior to 1974 experience failures due to cement growth causing radial cracks leading to moisture ingress. This project will replace 3,400 insulators out of a total of 3,700.

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.

RURAL SYSTEMS:

Replace Insulators - South Brook Distribution System(\$317,000)

Nature of Project

This project involves the replacement of insulators on the South Brook Distribution System. The line on the South Brook Distribution system consists of a 34-year old section from Roberts Arm to Pilley's Island, and a 21-year old section from Pilley's Island to Long Island. Both sections have Canadian Ohio Brass (COB) insulators which are deteriorating with hairline cracks. Hydro has experienced major outages of 20-minute to 21-hour durations affecting anywhere from 173 to 1,283 customers. This line has 1995 suspension and 1,500 pintype insulators. This project will replace 850 suspension insulators.

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.

RURAL SYSTEMS:

Replace Conductor/Poles - Burgeo (\$300,000)

Nature of Project

This project involves the replacement of conductor and poles on the Burgeo Distribution System. The line is a 36-year-old, three-phase distribution line with deteriorated conductor and poles. During icing conditions and high winds in October 2000, 312 customers were interrupted for 4.5 hours due to conductor breakage and pole failure. Since 1995 Hydro experienced 9 outages on this line. This project will replace 62 spans of #4 copper conductor with 4/0 aluminum and also replace 17 deteriorated poles.

Customer Impact

Failure to complete this work could result in interruptions 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.

RURAL SYSTEMS:

Purchase & Install Voltage Regulators - Barachoix (\$112,000)

Nature of Project

This project involves the purchase and installation of voltage regulators on the Barachoix System. Peak load level on the feeder has resulted in low voltage levels.

Customer Impact

This project will provide a more stable and regulated source 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.

RURAL SYSTEMS:

Replace Transformers - Burlington Substation (\$149,000)

Nature of Project

This project involves the replacement of transformers at the Burlington Substation. The existing transformation for the Burlington L2 feeder is three single-phase units installed on a pole mounted platform structure. These transformers are located in a separate station from the recloser serving the same feeder. The increase in transformer capacity requires that the new transformer be a three-phase, pad-mounted unit. Expanding the recloser station is the most cost effective means to accomplish the work and maintain the reliability of the system, and allow for future load growth.

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.

RURAL SYSTEMS:

Replace 136kW Diesel Unit No. 278 - McCallum (Previous \$220,000; \$56,000)

Nature of Project

This project (as previously approved by the PUB) involves the purchase and installation of a 100kW diesel generating set to replace the existing unit at McCallum. The existing unit was purchased in 1975 and will have approximately 93,000 operating hours by 2002. The unit will be replaced rather than complete its seventh major overhaul.

Due to a declining load forecast the size of the replacement unit has been reduced, as less generation will be needed to meet peak demand and maintain optimum fuel efficiency. The new unit would offer better efficiency, lower maintenance costs and improved exhaust emissions.

Customer Impact

A new engine will help maintain system reliability and reduce the risk of customer outages.

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 2001 and the construction completed in 2002.

RURAL SYSTEMS:

Replace 250kW Diesel Unit No. 2027 - McCallum (Previous \$209,000; \$55,000)

Nature of Project

This project (as previously approved by the PUB) involves the purchase and installation of a 170kW diesel generating set to replace the existing 250kW unit at McCallum. The existing unit was purchased and installed in McCallum in 1989 and has a total of 10,000 operating hours. The community load profile indicated a declining load forecast resulting in the requirement for a smaller unit to meet peak demand and maintain optimum fuel efficiency. The existing 250kW unit will replace an obsolete unit in Harbour Deep coincident with the plant upgrade in 2002.

Customer Impact

A new unit will help maintain system reliability and reduce the risk of customer outages.

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 2001 and the construction completed in 2002.

RURAL SYSTEMS:

Replace 136kW Diesel Unit No. 279 - Grey River (Previous \$11,000; \$297,000)

Nature of Project

This project (as previously approved by the PUB) involves the purchase and installation of a 136kW diesel generating set to replace an existing unit at Grey River. The existing unit was purchased in 1975 and will have approximately 108,000 operating hours by 2002. The unit will be replaced rather than complete its eighth major overhaul. The new unit would offer better efficiency, lower maintenance costs, and improved exhaust emissions.

Customer Impact

A new engine will help maintain system reliability and reduce the risk of customer outage.

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 2001 and the construction will be completed in 2002.

RURAL SYSTEMS:

Replace 136kW Diesel Unit No. 284 - Harbour Deep (Previous \$11,000; \$282,000)

Nature of Project

This project (as previously approved by the PUB) involves the purchase and installation of a 136kW diesel generating set to replace an existing unit at Harbour Deep. The existing unit was purchased in 1975 and will have approximately 94,000 operating hours by 2002. The unit will be replaced rather than complete its seventh major overhaul. The new unit would offer better efficiency, lower maintenance costs, and improved exhaust emissions.

Customer Impact

A new engine will help maintain system reliability and reduce the risk of customer outage.

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 2001 and the construction will be completed in 2002.

RURAL SYSTEMS:

Replace 75kW Diesel Unit No. 252 - Petites (Previous \$36,000; \$238,000)

Nature of Project

This project (as previously approved by the PUB) involves the purchase and installation of a 40kW diesel generating set to replace an existing unit at Petites. The existing unit, which was purchased in 1974, will have approximately 98,000 operating hours by 2002. The unit will be replaced rather than complete its seventh major overhaul. Due to a declining load forecast, the unit size has been reduced, as less generation will be needed to meet peak demand and also to maintain optimum fuel efficiency. The new unit would offer better efficiency, lower maintenance costs, and improved exhaust emissions.

Customer Impact

A new engine will help maintain system reliability and reduce the risk of customer outage.

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 2001 and the construction will be completed in 2002.

RURAL SYSTEMS:

Upgrade Distribution Lines - St. Anthony Distribution System (\$206,000)

Nature of Project

This project involves the upgrading of several lines on the St. Anthony Distribution System. These lines are: a 33-year-old 22.8km section of line in Cook's Harbour, a 25-year-old 0.8km section of line in Gunners Cove; and a 20-year-old 0.9km double circuit line in the Town of St. Anthony. These sections contributed to outages during the January 1999 storm, which interrupted 2500 customers in St. Anthony. From 1997 to 2000 the St. Anthony section saw an average of 104 recloser operations per year, Cook's Harbour - 88 reclosers per year, and Gunners Cove - 90 recloser operations per year. This project will shorten the span lengths, upgrade the conductor in all sections, and separate the double-circuit lines in St. Anthony.

Customer Impact

Failure to complete this work 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.

RURAL SYSTEMS:

Relocation of Line - Cook's Harbour (\$556,000)

Nature of Project

This project involves the relocation of part of the distribution line to the community of Cook's Harbour. Part of the line feeding Cook's Harbour is a 7.5 km section of three-phase line which is located on barren country and exposed to harsh conditions with winds in excess of 100 kms/hour. During January 19-20, 1999, the northern tip of the Great Northern Peninsula (GNP) experienced a severe wind and ice storm. The extreme winds and heavy ice build-up resulted in 43 broken poles and conductors. This project will relocate this section of line and upgrade the structures, conductor, and insulators.

Customer Impact

Relocating and upgrading this line will improve customer service reliability.

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.

RURAL SYSTEMS:

Replace Corroded Transformers - Northern (\$276,000)

Nature of Project

This project involves the replacement of transformers in the Northern Region. The distribution systems in the Northern Region have a high exposure to salt contamination. Hydro's transformer maintenance inspection program in 2000 identified corroded transformers which require replacement in 2002. This project will replace 109 distribution transformers with new units having stainless steel tanks.

Customer Impact

Failure to replace these transformers will result in interruptions of power to Hydro's customers and cause environmental damage.

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.

RURAL SYSTEMS:

Upgrade Distribution Line - Goose Cove (\$87,000)

Nature of Project

This project involves the upgrade of an 8 km section of a 34 years old line in the Goose Cove area. Some of the poles are at the end of their useful life. In March 2000 severe icing conditions caused an outage of 48 hours duration to 110 customers. This project will replace 18 poles and 30 insulators.

Customer Impact

Failure to upgrade this section of line will result in interruptions 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.

RURAL SYSTEMS:

Replace 136kW Diesel Unit No. 266 - William's Harbour (\$11,000; Future \$288,000)

Nature of Project

This project involves the purchase and installation of a 136 kW diesel generating set to replace an existing unit at William's Harbour. The existing unit, which was purchased in 1975, will have approximately 86,500 operating hours by 2002. The unit will be replaced rather than complete its sixth major overhaul. The new unit will offer better efficiency, lower maintenance costs and improved exhaust emissions.

Customer Impact

A new engine will help maintain system reliability and reduce the risk of customer outage.

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 will be completed in 2003.

RURAL SYSTEMS:

Replace 300 kW Diesel Unit No. 288 - Black Tickle (Previous \$11,000; \$318,000)

Nature of Project

This project (as previously approved by the PUB) involves the purchase and installation of a 300kW diesel generating set to replace existing unit at Black Tickle. The existing unit, which was purchased in 1978, will have approximately 88,000 operating hours by 2002. The unit will be replaced rather than complete its sixth major overhaul. The new unit would offer better efficiency, lower maintenance costs and improved exhaust emissions.

Customer Impact

A new engine will help maintain system reliability and reduce the risk of customer outages.

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 2001 and the construction will be completed in 2002.

RURAL SYSTEMS:

Replace 250 kW Diesel Unit No. 293 - Rigolet (Previous \$11,000; \$301,000)

Nature of Project

This project (as previously approved by the PUB) involves the purchase and installation of a 250kW diesel generating set to replace an existing unit at Rigolet. The existing unit, purchased in 1974, will have approximately 95,000 operating hours by 2002. The unit will be replaced rather than complete its sixth major overhaul. The new unit would offer better efficiency, lower maintenance costs and improved exhaust emissions.

Customer Impact

A new engine will help maintain system reliability and reduce the risk of customer outages.

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 2001 and the construction will be completed in 2002.

RURAL SYSTEMS:

Upgrade - Fuel Storage - Nain (\$339,000)

Nature of Project

This project involves the installation of a new liner under the fuel storage tanks, upgrading the dyke walls, upgrading the fuel transfer system, and improving drainage around the perimeter of the site.

This fuel storage site was constructed in 1975 and does not meet the current Storage and Handling of Gasoline and Associated Products (GAP) Regulations.

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.

RURAL SYSTEMS:

Purchase and Install Fire Alarm System - Black Tickle (\$50,000)

Nature of Project

This project involves the purchase and installation of a fire detection and alarm system at the Black Tickle generating plant.

The installation of a fire detection and alarm system, which shuts off the fuel supply to the plant in the event of an activation, will reduce the risk of severe damage to this diesel generating facility.

Customer Impact

Failure to complete this work could result in a long 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.

RURAL SYSTEMS:

Upgrade Diesel Plant - Harbour Deep (Previous \$35,000; \$515,000)

Nature of Project

This project (as previously approved by the PUB) involves the upgrading of the diesel plant building at Harbour Deep. This will involve the construction of a new diesel hall and the refurbishing of the existing diesel hall to serve as a new control room/office/washroom facility.

This work is necessary to correct the operational problems associated with the existing engine hall which is congested and lacks both the area and height necessary to perform operating and maintenance activities. As well, the existing plant floor does not provide for adequate spill containment.

Customer Impact

Failure to complete this work could result in the interruption of power supply to Hydro's customers.

Cost Benefit Study

An evaluation was completed to compare the proposed project with an interconnection of Harbour Deep to the Island Grid. The proposed project is significantly more cost effective than the interconnection option, which had an estimated capital cost of approximately \$4 million.

Future Commitments

There are no future commitments, this project will be completed in 2002.

RURAL SYSTEMS:

Upgrade Diesel Plant - St. Lewis (\$59,000; Future \$769,000)

Nature of Project

This project involves the upgrading of the diesel plant building at St. Lewis and will provide adequate area and height for the safe performance of operation and maintenance activities.

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

This is a two-year project. The engineering and material ordering will be completed in 2002 and the construction will be completed in 2003.

RURAL SYSTEMS:

Purchase Meters and Equipment - TRO System (\$172,000)

Nature of Project

This project will provide for an adequate inventory level of various types of meters, instrument transformers, meter test switches and other metering equipment.

Customer Impact

Failure to have adequate metering equipment available could result in customer hook-up delays.

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.

GENERAL PROPERTIES:

Replacement of AS400 Computers (\$2,109,000)

Nature of Project

This project involves the replacement of the two existing AS400 computers which support the corporate integrated applications. The five (5) year lease for the existing AS400 computers will expire during 2002. An assessment will be made in 2002 whether to purchase or lease.

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:

Replace Power Line Carrier Equipment - Transmission System - West Coast
(Previous \$300,000; \$651,000; Future \$1,428,000)

Nature of Project

This project (as previously approved by the PUB) involves the purchase and installation of new Power Line Carrier and High Voltage Coupling equipment. This is Phase IV of the Strategic Telecommunications Plan which addresses the replacement of the obsolete Power Line Carrier equipment on the West Coast as presented to PUB. This equipment provides power system protection signalling and operational voice and data to support the Energy Control Centre.

Customer Impact

Failure to replace this equipment could cause failure of the transmission system thus impacting Hydro's customers.

Cost Benefit Study

A formal cost benefit study was not required.

Future Commitments

This is a three-year project starting in 2001 and will be completed in 2003.

GENERAL PROPERTIES:

Replace VHF Mobile Radio System (\$8,373,000)

Nature of Project

This project involves the replacement of the existing VHF mobile radio system. This system was installed in 1989 and is obsolete. The system comprises 30 repeaters located across the Island, a central switch located in Gander, and mobile and portable user radios. The equipment is obsolete and has not been supported by the manufacturer for 10 years. The existing inventory of spares is not sufficient to extend the life of the system.

Customer Impact

This replacement is required to ensure that Corporation personnel have access to mobile communications during routine and emergency maintenance and repair.

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 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:

Replace Remote Terminal Unit for Hydro - Phase 3 (\$311,000)

Nature of Project

This project involves the replacement of four (4) Quindar Remote Terminal Units (RTUs) which have reached the end of their useful life. This equipment is used for the control and monitoring of Hydro's transmission and generation system.

Customer Impact

Failure to replace this equipment 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

This is phase 3 of a 6 year program and requests for the approval of additional phases will be included in future submissions to the PUB.

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 Telephone Isolation Equipment - Sunnyside & Western Avalon (\$52,000)

Nature of Project

This project involves the replacement of obsolete telephone isolation equipment at the Sunnyside and Western Avalon Terminal Stations. The equipment is required to protect personnel and telephony equipment. Fibre optic technology will be used to replace the copper circuits which provide backup communications for the monitoring and control of the power system as well as voice communications.

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:

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.

Section C

NEWFOUNDLAND & LABRADOR HYDRO
TRANSMISSION
2002 CAPITAL BUDGET
PROJECTS SUBJECT TO MINIMUM REQUIREMENTS - OVERVIEW
(\$,000)

PROJECT DESCRIPTION	Exp To		Future	Total	In-Service Date	Explanations
	2001	2002	Years			Page Ref.
Upgrade TL242 - (230kv Holyrood - Hardwoods)	461	8,525		8,986	Nov. 02	C-11
Upgrade TL236 - (230kv Hardwoods - Oxen Pond)	170	5,110		5,280	Nov. 02	C-12
Uprate of TL203- (230kv Sunnyside - Western Avalon)		15	192	207	Oct. 03	C-13
TOTAL TRANSMISSION	631	13,650	192	14,473		

Upgrade Transmission Lines - Avalon Peninsula

1. Project Name

Upgrade - 230kV transmission lines TL236 and TL242. These lines comprise part of the transmission system on the Avalon Peninsula, and are located as shown on the attached map (Attachment No. 1).

2. Project Scope

The primary justification for this project is to improve the reliability of the lines under wind/ice loading conditions. However, inherent with the rebuilding there is also an increase in load carrying capability. This additional capability will provide an opportunity for more flexibility and improved efficiency in scheduling the generating resources serving the east coast.

The project involves rebuilding the lines by using a new high strength conductor and stronger structures, to withstand heavier ice/wind loads. The original design criteria for these lines were 25 and 38mm radial ice or 176 km/hr. maximum wind. The new design criteria for the upgrade is 66 and 76mm radial ice or 176km/hr.maximum wind.

In finalizing the design, it was concluded that a reconfiguration of TL218, TL242 and TL236 as per Attachment No. 2 would provide added reliability to the Hardwoods and Oxen Pond Terminal Stations. The revised configuration will have the steel tower section of TL218 (Holyrood Terminal Station to near the Hardwoods Terminal Station) upgraded, terminated at the Hardwoods Terminal Station and renumbered TL242. The wood-pole section of TL218 (near the Hardwoods Terminal Station to Oxen Pond Terminal Station) will join with the existing TL242 (Holyrood Terminal Station to Hardwoods Terminal Station) to form the new line TL218. The existing TL236 (Hardwoods Terminal Station to Oxen Pond Terminal Station) will be upgraded from a wood-pole line to a new steel lattice/pole line. This reconfiguration of the transmission lines associated with the terminal stations at Hardwoods and Oxen Pond will result in an upgraded steel tower transmission circuit from Sunnyside Terminal Station to Oxen Pond Terminal Station with terminations in all of the 230kV terminal stations on the Avalon Peninsula.

Engineering and project management resources will be provided by permanent Hydro staff, with temporary staff as required, during different stages of the project. Local contractors have sufficient labour, plant and equipment available to undertake this work and complete it within the required schedule. Contract packages will be publicly tendered.

Upgrade Transmission Lines - Avalon Peninsula (cont'd.)

3. Project Timetable/Cash Flow

Attachment No. 3 shows the overall schedule and cash flow.

The plan for each line upgrade is to start design work and materials ordering in the first year. The construction program follows the general plan of installing foundations and pre-assembling structures along the line route. This is accomplished while the line is energized and in-service. Tower erection and conductor stringing is performed during strategically timed outages. During these outages, erection and stringing is managed in such a way that the line can be put back in service within a week. This schedule is designed to maintain overall system security and reliability during the rebuild program.

The major upgrade program for the Avalon Peninsula will be completed in 2002 as proposed in the current budget submission. Hydro has concluded that a general upgrading of the wood-pole lines on the Avalon Peninsula is not recommended at this time, as more data collection is required. As well, the added reliability of the upgraded steel transmission lines and the reconfiguration of the transmission line into Hardwoods and Oxen Pond Terminal Stations ensures an upgraded steel line to each terminal station on the Avalon Peninsula.

4. Customer Impact

There is no direct customer impact during the Construction Program. Failure to complete the re-build may result in extensive line outages affecting reliability to customers at a frequency greater than those previously experienced.

5. Statement of Need

Because of the failures caused by the December 1994 ice storm and in consideration of other line failures over the past 30 years, all of which were extensive in terms of duration, a reliability study of the Avalon Peninsula lines was undertaken. This report was submitted with the 1997 Capital Budget. These lines are highly exposed to glaze ice loads coupled with in-cloud icing. Based on line failure records, and historical meteorological data, new probabilistic ice loads were determined. These load values far exceeded the original design criteria for the lines. This study determined that an upgrade to these lines was required to increase the reliability and security of the system.

6. Description of Corrective Options

Three options for upgrade were considered:

- (1) Addition of mid-span structures and addition of dead-end structures at strategic locations;
- (2) Reconductoring with a new high strength alloy conductor;
- (3) Building a new line to withstand the new ice/wind loads.

Upgrade Transmission Lines - Avalon Peninsula (cont'd.)

7. Documentation of Decision Rationale

A "Cost-Risk" analysis of the three options was used in identifying the preferred option. This analysis consisted of:

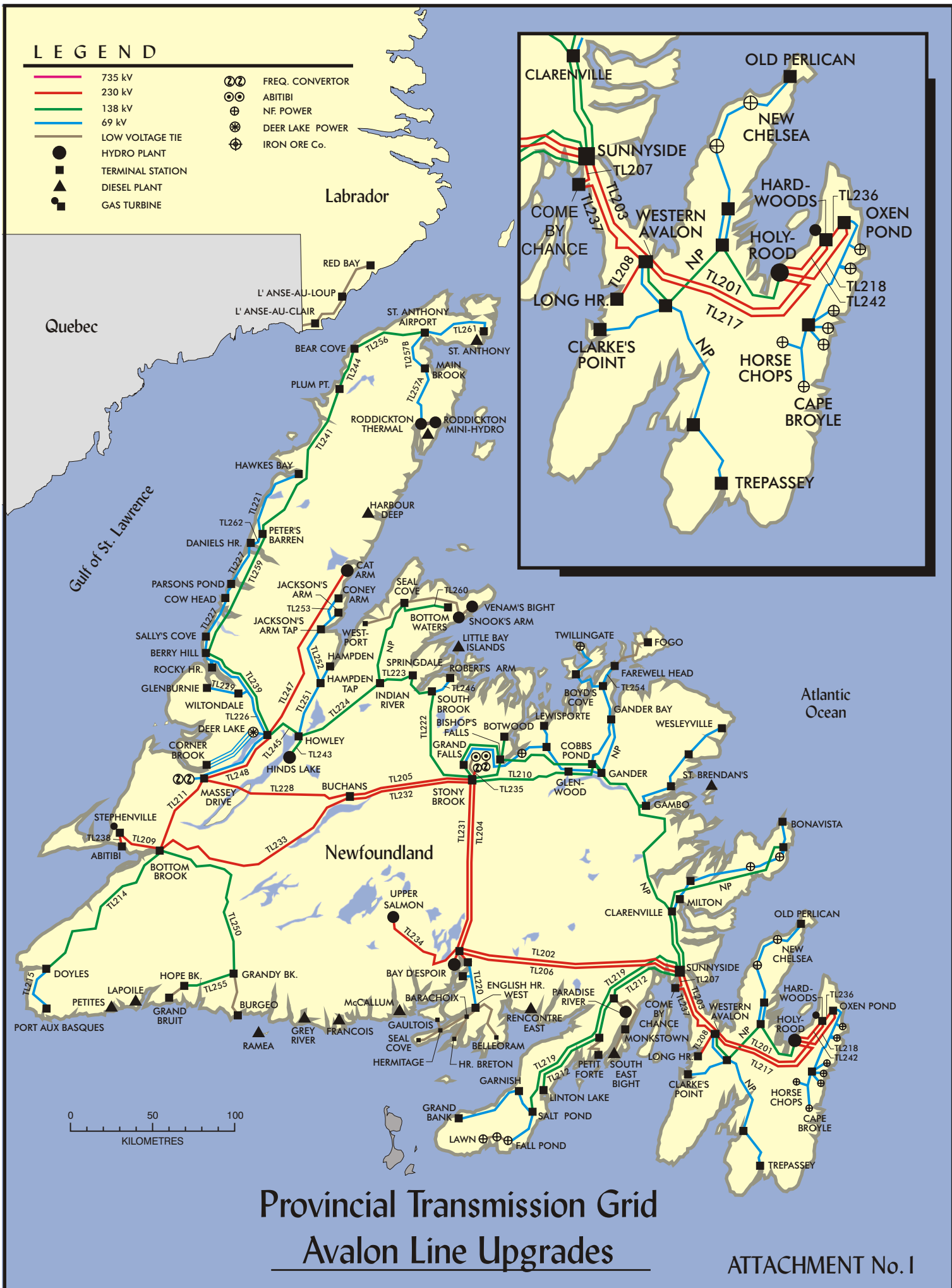
- (a) identification and ranking of exposures, and
- (b) probabilistic evaluation of the consequences of these exposures.

It dealt with the probability of exceeding the design mechanical loading of the line; the probability of line failure; and the cost of repair.

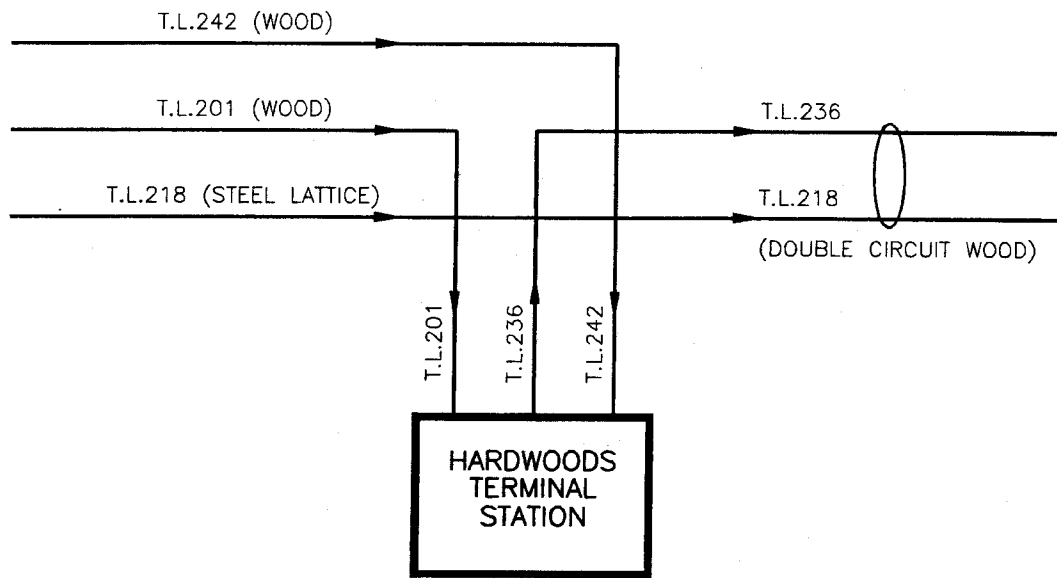
The expected "Risk-Value" is calculated as the product of the probability of the event, and cost of the damage resulting from the event. The cost of each upgrade option was compared with the risk value of each event, to determine a break-even-point (BEP). The break-even-index (BEI) is the ratio of the cost of upgrading to the cost of damage. Then if the BEP is less than or equal to BEI, the upgrade is cost effective.

The Cost-Risk analysis based on an economic approach provides a useful guide to make decisions regarding upgrading. However, there are other factors that cannot be assessed in monetary terms. They include customer satisfaction and the provision of a suitable environment for industrial growth resulting from a more reliable supply of power.

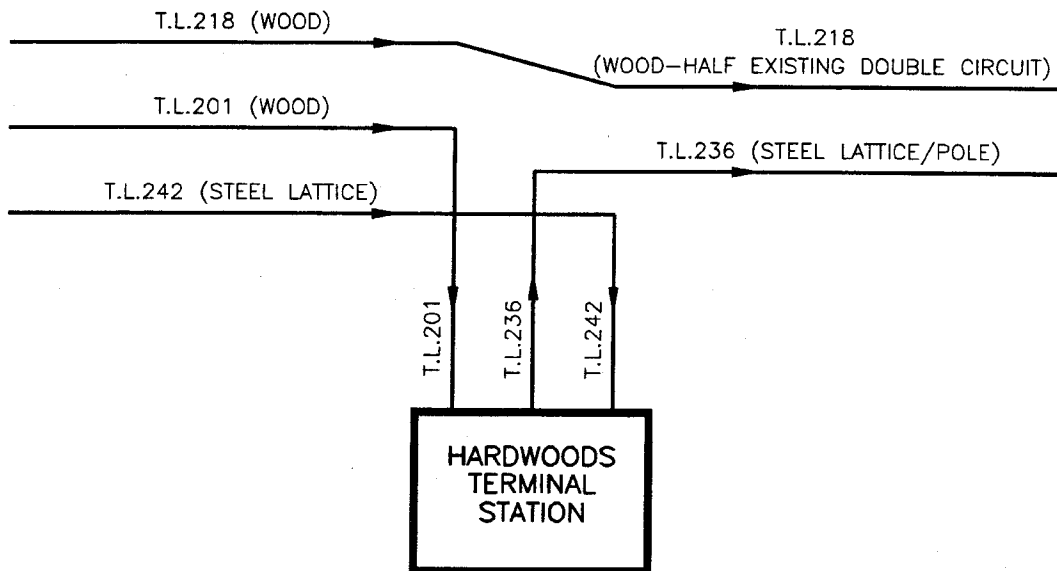
The study identified the addition of mid-span and dead-end structures as best meeting the cost benefit analysis criteria. However, in consideration of system reliability and security it was recommended that the option of reconductoring with a new high strength conductor would provide the best option overall.



Provincial Transmission Grid Avalon Line Upgrades



EXISTING TRANSMISSION LINE CONFIGURATION



PROPOSED TRANSMISSION LINE CONFIGURATION

(SWAPPING EXISTING T.L.218 WITH T.L.242 & ONLY UPGRADE T.L. 236, HALF OF EXISTING DOUBLE CIRCUIT CONFIGURATION)

Upgrading of Transmission Lines on the Avalon Peninsula

Plan

ATTACHMENT No 3

	1998	1999	2000	2001	2002
TL 217 (6.7 km)					
IL 207 (6.2 km)					
TL 237 (44.2 km)					
IL 242 (steel section) (26.9 km)					
TL 236 (wood section) (10.55 km)					
Total Cost (\$,000)	1,604	8,955	10,860	12,587	13,635

Uprate TL203 (230kV Sunnyside - Western Avalon)

1. Project Name

This project involves all engineering and construction work associated with the thermal uprating of TL203. TL203 is designed to operate at a maximum conductor temperature of 50⁰C. This project will modify TL203 to operate at a 75⁰C conductor temperature thus increasing its load transfer capability.

2. Project Scope

A review of the Plan & Profile for TL203 has determined that with the exception of a few critical locations the line is already capable of operating at 75⁰C. It is being proposed that at these critical locations mid-span structures be added to limit the line sag to acceptable standards when operated at the higher temperature.

3. Project Timetable/Cash Flow

The preliminary design work for this project will commence in April 2002 which will include a field verification of the line plan and profile, with the actual construction of the mid-span structures taking place during the summer of 2003.

<u>Year</u>	<u>Project Cost</u>
2002	\$15,200.00
2003	<u>191,700.00</u>
Total	206,900.00

4. Customer Impact

The thermal uprating of TL203 will increase the transfer capability of the east cost transmission grid. This increased capability will be of most benefit during periods when the Holyrood thermal plant is offline or when the system is experiencing a 230kV transmission line outage. The thermal uprating will improve the reliability of service to customers on the Avalon Peninsula during the above periods and in addition the increased transfer capability will permit Hydro to more effectively utilize the existing Island hydroelectric facilities.

Upgrade of TL203 (230kV Sunnyside - Western Avalon) (cont'd.)

II SPECIFIC FILING REQUIREMENTS

5. Statement of Need

The 1995 Hydro report “East Coast Voltage Study” identified a number of deficiencies in the east coast transmission system and recommended a plan to mitigate these deficiencies which included:

- The addition of capacitors at Hardwoods and Oxen Pond terminal stations;
- The thermal upgrading and/or reconductoring of TL207, TL237 and TL203.

The capacitors at Hardwoods and Oxen Pond have been added and the thermal upgrading and reconductoring of TL207 and TL237 has been incorporated as part of the Avalon Lines Upgrade Program (Phase I Steel Lines). Had Phase II of the program (the wood pole lines) proceeded, the upgrading and reconductoring of TL203 would also have been completed.

The requirement for the thermal upgrading of TL203 still exists and once the steel line upgrade program is complete TL203 will be the limiting capacity link of the east coast transmission system. The East Coast Voltage Study indicates that it would be desirable to be able to deliver 365 MW to the Avalon Peninsula during periods when Holyrood is off. To attain this goal and to be able to achieve maximum flexibility in the scheduling of the Island generating resources TL203 will require thermal upgrading and reconductoring.

6. Description of Corrective Options

The East Coast Voltage Study investigated the following corrective measures for the ampacity limitation on 230kV transmission lines TL203, TL207 and TL237.

- i) Thermal Upgrading: which involved modifying the lines to allow them to operate at temperatures up to 75⁰C utilizing existing conductors.
- ii) Thermal Upgrading & Reconductoring: which includes replacement of all conductor with 795 MCM ACSR (or electrical equivalent) operating at 75⁰C as opposed to 50⁰C.

The latter was the preferred alternative, as thermal upgrading alone did not achieve the 365 MW transfer requirement for certain line out contingencies.

Uprate of TL203 (230kV Sunnyside - Western Avalon) (cont'd.)

7. Documentation of Decision Rationale

Concurrent with the East Coast Voltage Study, studies were also completed which assessed the mechanical strength of these lines and their ability to withstand ice and wind loads. The lines were determined to be deficient in these areas as well and a resultant work plan, known as the Avalon Lines Upgrade Program, was developed to upgrade and re-conductor the 230kV lines on the Avalon Peninsula including TL203, TL207 and TL237. As part of the Avalon Lines Upgrade Program the capacity deficiencies identified in the East Coast Voltage Study would be rectified.

As mentioned previously, TL207 and TL237 have been upgraded as part of Phase I of the Avalon Lines Upgrade Program. In the year 2000, Hydro made a decision not to proceed with Phase II (the wood pole lines) of the upgrade program. This decision was based on knowledge gained from an evaluation of the residual strength of the 230kV wood pole transmission lines on the Avalon Peninsula. This evaluation indicated that while the existing poles have sufficient strength to withstand original design ice loads an upgrade to the proposed new ice loads using existing structures was not practical.

This proposal for the thermal uprate of TL203 is being submitted as a result of the cancellation of the wood pole upgrade program. The limited transfer capacity of TL203 has caused difficulty in the past and will continue to do so in the future until the problem is corrected. The optimum solution as identified in the East Coast Voltage Study would be the thermal uprating combined with re-conductoring, however given the uncertainties regarding the residual strength and remaining life of the existing wood pole structures, the decision to proceed with only the thermal uprating is deemed more prudent. The thermal uprating alone will greatly enhance the operating flexibility of this system and increase the capacity of this line by approximately 80 MVA. This combined with the fact that TL207 and TL237 have been thermally uprated and re-conducted goes a long way in alleviating the deficiencies identified in the East Coast Voltage Study.

TRANSMISSION:

Upgrade TL242 - (230kV Holyrood - Hardwoods)

Nature of Project

TL218 is a 230kV transmission line located on the Avalon Peninsula connecting the Holyrood Terminal Station to Oxen Pond Terminal Station, a distance of approximately 37.5km. This total line can be divided into two major segments. The first segment, approximately 25km, is a steel line consisting of suspension and light angle towers (guyed V-type), and self supported towers at heavy angle and deadend locations. This steel line segment runs from Holyrood Terminal Station to a point near the Hardwoods Terminal Station. The second segment, approximately 11km, from Hardwoods to Oxen Pond, is part of a double circuit wood-pole arrangement with TL236.

To improve the overall reliability for the Avalon Peninsula Transmission System a plan has been developed to upgrade several transmission lines. This proposal includes the upgrading of the first segment of TL218 and terminating it at the Hardwoods Terminal Station. The line will be renamed TL242. The structures and conductors will be designed such that they will withstand the estimated 25-year ice load of 66mm radial glaze ice.

It should be noted that the existing wood-pole line TL242 will be disconnected from Hardwoods Terminal Station, joined with the existing wood-pole section of TL218 to Oxen Pond and renamed TL218.

Customer Impact

Failure to complete this upgrade could result in extensive line outages affecting reliability to customers at a frequency of those previously experienced.

Cost Benefit Study

A formal cost benefit study was completed and reviewed by the Public Utility Board at the hearing for Hydro's 1997 Capital Budget.

Future Commitments

This is a two-year project. The engineering will be completed in 2001 and construction will be completed in 2002. There are no future commitments.

TRANSMISSION:

Upgrade TL236 - (230kV Hardwoods - Oxen Pond)

Nature of Project

TL236 is a 230kV transmission line located on the Avalon Peninsula connecting Hardwoods and Oxen Pond Terminal Stations, a distance of approximately 11km. The present line is built in a wood-pole double-circuit arrangement with TL218.

To improve the overall reliability for the Avalon Peninsula Transmission System, a plan has been developed to upgrade several transmission lines. This proposal covers the upgrading of TL236. The work will include dismantling one side of the existing double-circuit wood-pole line and constructing a separate single-circuit lattice steel line along the existing alignment within the existing right-of-way. Since this will be a completely new transmission line, the structures and conductors will be designed such that they will withstand the estimated 50-year ice load of 76mm radial glaze ice.

Customer Impact

Failure to complete this upgrade could result in extensive line outages affecting reliability to customers at a frequency of those previously experienced.

Cost Benefit Study

A formal cost benefit study was completed and reviewed by the Public Utilities Board at the hearing for Hydro's 1997 Capital Budget.

Future Commitments

This is a two-year project. The engineering will be completed in 2001 and construction will be completed in 2002. There are no future commitments.

TRANSMISSION:

Uprate of TL203 (230kV Sunnyside – Western Avalon)

Nature of Project

TL203 is a 230kV transmission line connecting the Sunnyside Terminal Station to the Western Avalon Terminal Station. This proposal involves the thermal uprating of the line to allow operation at conductor temperatures up to 75⁰C. Presently, this line is limited to a maximum conductor temperature of 50⁰C. The proposal involves the addition of mid-span structures at critical locations to limit the line sag to acceptable standard when operated at higher temperatures.

Customer Impact

The thermal uprating of TL203 will increase the transfer capability of the east coast transmission grid affording the system operators increased flexibility during periods when the Holyrood thermal plant is off line or when the system is experiencing a 230kV transmission line outage.

Cost Benefit Study

The 1995 Hydro report the “East Coast Voltage Study” identified the deficiency with TL203 and recommended remedial actions. This report has been reviewed by the Public Utility Board at the hearing for Hydro’s 1997 Capital Budget.

Future Commitments

This is a two-year project. The engineering and material ordering will be completed in 2002 and construction will be completed in 2003.

Section D

SECTION D

NEWFOUNDLAND & LABRADOR HYDRO

2002 LEASING COSTS

COMPANY	ITEM	2002 COST	EXPIRY DATE
OTHER GENERAL PROPERTIES:			
Doble Engineering Company	High Voltage Electrical Test Equipment	\$52,687	May, 2002
Crown Lands	Upper Salmon Hydro Site	\$5,759	July, 2041
Fortis Properties	Office Space - St. Anthony	\$47,136	September, 2005
Goose Real Estate Ltd.	Office Space - Happy Valley/Goose Bay	\$63,581	October, 2005
IBM	AS400 - Computers	\$169,054	April, 2002
IBM	Increase AS400 DASD System	\$17,332	April, 2002
IBM	Computer equipment to upgrade office Technology	\$443,101	June, 2004
Xerox Canada Inc.	Mainframe - Docuprint 65 Prod. Printing Sys.	\$41,920	November, 2004
John & Shirley Augot	Living Accommodations - Recontre East	\$7,200	September, 2003
Menihok Shopping Centre Ltd.	Office Space - Wabush	\$15,630	October, 2009
Roylease Limited	Computerized Energy management System	\$932,164	October, 2005

Section E

SECTION E

NEWFOUNDLAND & LABRADOR HYDRO

Capital Expenditures 1996 - 2005 (\$000)

	ACTUALS 1996	ACTUALS 1997	ACTUALS 1998	ACTUALS 1999	ACTUALS 2000	BUDGET 2001	BUDGET 2002	BUDGET 2003	BUDGET 2004	BUDGET 2005
GENERATION	4,834	7,076	6,667	8,185	3,463	5,672	6,879	5,048	4,893	3,767
TRANSMISSION	13,096	3,647	10,466	15,450	18,671	21,197	16,920	7,894	5,890	2,959
RURAL SYSTEMS										
REGIONAL OPERATIONS										
Construction Projects	4,001	4,600	3,099	5,339	7,182	7,034	7,351	4,774	3,872	5,379
Property Additions	297	587	37	345	217	244	48	122	36	10
Tools & Equipment	414	651	130	1,375	583	250	221	492	513	125
NEW POWER PLANTS	0	24	1,054	17	76	3,847	0	0	0	0
INTERCONNECTIONS	1,601	792	337	1,505	118	0	0	0	0	0
MAJOR UPGRADING										
Power Plants	672	3,528	1,584	214	572	1,204	574	769	0	0
Distribution Systems	420	1,442	315	289	1,201	0	0	0	0	0
Fuel Systems	209	187	337	38	0	0	0	0	0	0
METERING	19	134	97	139	38	222	209	213	246	215
GENERAL PROPERTIES	2,698	7,493	7,638	3,757	6,442	16,228	15,835	17,209	7,930	11,196
TOTAL CAPITAL EXPENDITURES	28,261	30,161	31,761	36,653	38,563	55,897	48,037	36,521	23,380	23,651

Order No. P.U. 31 (2000 - 2001) Section 5

**NEWFOUNDLAND AND
LABRADOR HYDRO
STATUS REPORT
2001 CAPITAL EXPENDITURES**

NEWFOUNDLAND & LABRADOR HYDRO

Order No. P.U. 31 (2000-2001) Section 5

STATUS REPORT - 2001 CAPITAL EXPENDITURES - OVERVIEW

FOR THE PERIOD ENDING APRIL 30, 2001
(\$,000)

	Expenditures Prior To 2001	PUB Approved Budget 2001	2001 Expenditures To April 30	Expected Remaining Expenditures 2001	Expected Total Expenditures 2001	Var. from Approved to Expected Expenditures
GENERATION	1,570	5,483	318	4,785	5,103	380
TRANSMISSION	6,984	20,742	5,438	15,341	20,779	(37)
RURAL SYSTEMS	1,915	12,475	1,686	10,598	12,284	191
GENERAL PROPERTIES	586	16,077	836	15,243	16,079	(2)
CONTINGENCY FUND	272	1,120	134	1,064	1,198	(78)
TOTAL CAPITAL BUDGET	<u>11,327</u>	<u>55,897</u>	<u>8,412</u>	<u>47,031</u>	<u>55,443</u>	<u>454</u>
Original Budget (Order No P.U.31 (2000-2001))		54,681				
Carryover Projects 2000 to 2001		<u>1,216</u>				
TOTAL CAPITAL BUDGET		<u>55,897</u>				

NOTE: As of April 30, 2001 there are no projects anticipated to be carried over to 2002, except for those that are planned to be completed in future years (multi-year projects).

NEWFOUNDLAND & LABRADOR HYDRO

STATUS REPORT - 2001 CAPITAL EXPENDITURES - OVERVIEW

FOR THE PERIOD ENDING APRIL 30, 2001
(\$,000)

	Expenditures Prior To 2001	PUB Approved Budget 2001	2001 Expenditures To April 30	Expected Remaining Expenditures 2001	Expected Total Expenditures 2001	Var. from Approved to Expected Expenditures
GENERATION						
HYDRO PLANTS						
Construction Projects	238	1,590	50	1,175	1,225	365
Property Additions	0	133	5	128	133	0
Tools & Equipment	0	140	33	107	140	0
THERMAL PLANT						
Construction Projects	1,332	3,373	209	3,150	3,359	14
Tools & Equipment	0	82	18	64	82	0
GAS TURBINE PLANT						
Construction Projects	0	165	3	161	164	1
TOTAL GENERATION	<u>1,570</u>	<u>5,483</u>	<u>318</u>	<u>4,785</u>	<u>5,103</u>	<u>380</u>
TRANSMISSION						
REGIONAL OPERATIONS						
Construction Projects	10	656	44	548	592	64
Tools & Equipment	0	315	251	64	315	0
SYSTEM SECURITY & RELIABILITY IMPROVEMENTS	6,518	19,001	4,807	14,247	19,054	(53)
SYSTEM PERFORMANCE & PROTECTION	456	770	336	482	818	(48)
TOTAL TRANSMISSION	<u>6,984</u>	<u>20,742</u>	<u>5,438</u>	<u>15,341</u>	<u>20,779</u>	<u>(37)</u>

NEWFOUNDLAND & LABRADOR HYDRO

STATUS REPORT - 2001 CAPITAL EXPENDITURES - OVERVIEW

FOR THE PERIOD ENDING APRIL 30, 2001
(\$,000)

	Expenditures Prior To 2001	PUB Approved Budget 2001	2001 Expenditures To April 30	Expected Remaining Expenditures 2001	Expected Total Expenditures 2001	Var. from Approved to Expected Expenditures #
RURAL SYSTEMS						
REGIONAL OPERATIONS						
Construction Projects	1,327	6,743	1,467	5,067	6,534	209
Property Additions	0	234	13	221	234	0
Tools & Equipment	0	228	15	213	228	0
NEW POWER PLANTS	93	3,847	35	3,812	3,847	0
MAJOR UPGRADING						
Power Plants	495	1,204	154	1,098	1,252	(48)
METERING	0	219	2	187	189	30
TOTAL RURAL SYSTEMS	<u>1,915</u>	<u>12,475</u>	<u>1,686</u>	<u>10,598</u>	<u>12,284</u>	<u>191</u>
GENERAL PROPERTIES						
INFORMATION SYSTEMS & TELECOMMUNICATIONS						
	547	14,612	550	14,062	14,612	0
ADMINISTRATIVE	39	1,465	286	1,181	1,467	(2)
TOTAL GENERAL PROPERTIES	<u>586</u>	<u>16,077</u>	<u>836</u>	<u>15,243</u>	<u>16,079</u>	<u>(2)</u>
CONTINGENCY FUND	272	1,120	134	1,064	1,198	(78)
TOTAL CAPITAL BUDGET	<u>11,327</u>	<u>55,897</u>	<u>8,412</u>	<u>47,031</u>	<u>55,443</u>	<u>454</u>

NEWFOUNDLAND & LABRADOR HYDRO
GENERATION
STATUS REPORT - 2001 CAPITAL EXPENDITURES - DETAIL
FOR THE PERIOD ENDING APRIL 30, 2001
(\$,000)

PROJECT DESCRIPTION	Expenditures Prior To 2001	PUB Approved Budget 2001	2001 Expenditures To April 30	Expected Remaining Expenditures 2001	Expected Total Expenditures 2001	Var. from Approved to Expected Expenditures	Var. EXP. Note Ref.
<u>HYDRO PLANTS</u>							
<u>CONSTRUCTION PROJECTS</u>							
Replace Halon 1301 Fire Protection Systems for Generation System -00	238	67	8	59	67	0	
Replace Halon 1301 Fire Protection Systems for Generation System	0	570	8	321	329	241	Note 1
Replacement of Piping on Surge Tanks - Bay D'Espoir	0	416	0	322	322	94	Note 2
Upgrade Controls - Spherical Valve #4 - Bay D'Espoir	0	187	19	168	187	0	
Install Fault Recorder - Hinds Lake	0	154	12	134	146	8	
Replace Battery Charger - Unit No. 7 - Bay D'Espoir	0	69	0	47	47	22	
Replace Underground Jet Fuel Storage Tank - Bay D'Espoir	0	48	3	45	48	0	
Replace Bubbler System at Intake - Upper Salmon	0	25	0	25	25	0	
Install Monitoring Equipment - Upper Salmon Powerhouse	0	25	0	25	25	0	
Install Frazil Ice Detection System - Hind's Lake	0	9	0	9	9	0	
Install Electronic Security System - Bay D'Espoir	0	7	0	7	7	0	
Replace Unit 1 Exciter - Cat Arm	0	13	0	13	13	0	
TOTAL CONSTRUCTION PROJECTS	238	1,590	50	1,175	1,225	365	
<u>PROPERTY ADDITIONS</u>							
Provide Trailer Extension - Upper Salmon	0	133	5	128	133	0	
TOTAL PROPERTY ADDITIONS	0	133	5	128	133	0	
<u>TOOLS & EQUIPMENT</u>							
Purchase & Replace Tools & Equipment Less than \$50,000	0	140	33	107	140	0	
TOTAL TOOLS & EQUIPMENT	0	140	33	107	140	0	

**NEWFOUNDLAND & LABRADOR HYDRO
GENERATION
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<u>THERMAL PLANT</u>							
<u>CONSTRUCTION PROJECTS</u>							
Purch/Install Water Lance Blowing System for Boiler Unit No.3 - Holyrood	335	115	81	34	115	0	
Replace Exciter - Unit No. 1. Holyrood	654	27	17	10	27	0	
Install Visible Emission Monitors on Units No 1 to 3 - Holyrood	341	62	57	5	62	0	
Replace and Install Reheater Inlet on Unit No. 3 - Holyrood	0	1,342	5	1,325	1,330	12	
Replacement of Uninterruptible Power Supply on Unit No. 3 - Holyrood	0	370	23	346	369	1	
Pur/Install Lube Oil Filter-Turbine Gen. Bearing - Units No.1 & 2 - HRD	2	916	7	909	916	0	
Upgrade Oil Systems for Fire Protection on Unit No.2 - Holyrood	0	217	0	217	217	0	
Upgrade Oil Systems for Fire Protection on Unit No.1 - Holyrood	0	205	0	205	205	0	
Purch/Install Turbo Generator Analysis Equip - Unit No. 3 Generator - HRD	0	119	19	99	118	1	
TOTAL CONSTRUCTION PROJECTS	1,332	3,373	209	3,150	3,359	14	
<u>TOOLS & EQUIPMENT</u>							
Purchase & Replace Tools & Equipment Less than \$50,000	0	82	18	64	82	0	
TOTAL TOOLS & EQUIPMENT	0	82	18	64	82	0	
<u>GAS TURBINE PLANTS</u>							
<u>CONSTRUCTION PROJECTS</u>							
Replace Air Compressors at Hardwoods Gas Turbine	0	104	3	101	104	0	
Upgrade Gas Turbine Console - Happy Valley	0	61	0	60	60	1	
TOTAL CONSTRUCTION PROJECTS	0	165	3	161	164	1	
TOTAL GENERATION	1,570	5,483	318	4,785	5,103	380	

**NEWFOUNDLAND & LABRADOR HYDRO
TRANSMISSION
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REGIONAL OPERATIONS							
CONSTRUCTION PROJECTS							
CENTRAL REGION - TERMINALS							
Replace Compressed Air System - Bottom Brook Terminal Station	5	90	2	88	90	0	
Replace System Air Dryer - Hardwoods Terminal Station	5	60	1	59	60	0	
Modify Sump and Drainage - Corner Brook Frequency Converter	0	83	0	83	83	0	
Replace Air Compressor - Grand Falls Frequency Converter	0	74	0	42	42	32	
Replace Air Compressor - Corner Brook Frequency Converter	0	73	0	42	42	31	
Replace System Air Dryer - Grand Falls Frequency Converter	0	38	0	38	38	0	
Replace Chain Link Fence - Come by Chance T.S.	0	53	3	50	53	0	
Upgrade Mobile Substation Protection & Controls	0	53	0	53	53	0	
Construct New Access Road to Massey Drive Terminal Station	0	44	7	36	43	1	
Replace Battery Chargers - Massey Drive Terminal Station	0	19	0	19	19	0	
Replace Instrument Transformers/Surge Arrestors - Central	0	69	31	38	69	0	
TOTAL CONSTRUCTION PROJECTS	10	656	44	548	592	64	
TOOLS & EQUIPMENT							
CENTRAL REGION							
Replace Heavy Duty All Terrain Vehicle - Stephenville	0	239	239	0	239	0	
Purchase & Replace Tools & Equipment Less than \$ 50,000	0 #	76	12	64	76	0	
TOTAL TOOLS & EQUIPMENT	0	315	251	64	315	0	

NEWFOUNDLAND & LABRADOR HYDRO
TRANSMISSION
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<u>SYSTEM SECURITY & RELIABILITY IMPROVEMENTS</u>							
Replace Poles-TL225 (Deer Lake Powerhouse-Deer Lake Term Station)	116	92	3	89	92	0	
Lightning Performance Improvements-TL202/206-(Bay D' Esp-Sunnyside)	3,539	2,093	923	1,170	2,093	0	
Replacement of Insulators-TL240-(138kV Happy Valley-Churchill Falls)	1,786	1,929	98	1,831	1,929	0	
Upgrade TL227 - (69kV Berry Hill - Daniels Harbour)	0	1,455	0	1,454	1,454	1	
Upgrade TL262 - (69kV Daniels Harbour - Peter's Barren)	0	591	0	690	690	(99)	Note 3
Upgrade TL237 - (230kV Come By Chance - Western Avalon)	1,077	11,956	3,783	8,173	11,956	0	
Replacement of Insulators - TL231 - (230kV Bay D'Espoir - Stoney Brook)	0	254	0	254	254	0	
Upgrade TL242 - (Holyrood - Hardwoods)	0	461	0	416	416	45	
Upgrade TL236 - (Hardwoods - Oxen Pond)	0	170	0	170	170	0	
TOTAL SECURITY & RELIABILITY IMPROVEMENTS	6,518	19,001	4,807	14,247	19,054	(53)	
<u>SYSTEM PERFORMANCE & PROTECTION</u>							
Provide 66kV Backup Protection - Hardwoods & Oxen Pond	73	50	90	9	99	(49)	
Upgrade 230kV Backup Protection - TL 211, 236, 247 & 248	192	25	23	2	25	0	
Purchase/Install 138kV Breaker Failure Protection at DL, SB & SSD	118	147	64	83	147	0	
Provide Computerized Monitoring System - Oxen Pond Terminal Station	51	23	8	15	23	0	
Purch/Install Communication Interface to Digital Relays at SSD, B'DE#1 & B'D	14	25	11	14	25	0	
Purchase Metering Spares - Meter Shop - Hydro Place	8	19	0	19	19	0	
Upgrade 230kV Backup Protection - TL 207, 237, 242 & 234	0	288	121	167	288	0	
Purchase/Install Substation Automation Scheme - Oxen Pond T.S.	0	75	5	69	74	1	
Purchase and Install 230kV Recloser PLC Refit - Stoney Brook T.S.	0	41	0	41	41	0	
Purchase/Install Underfrequency Relay Upgrade - DLK, BDE & GBK	0	31	0	31	31	0	
Purchase Metering Spares - Meter Shop - Hydro Place	0	28	0	28	28	0	
Purchase Earth Resisivity Meter	0	18	14	4	18	0	
TOTAL SYSTEM PERFORMANCE & PROTECTION	456	770	336	482	818	(48)	
TOTAL TRANSMISSION	6,984	20,742	5,438	15,341	20,779	(37)	

NEWFOUNDLAND & LABRADOR HYDRO
RURAL SYSTEMS
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<u>REGIONAL OPERATIONS</u>							
<u>CONSTRUCTION PROJECTS</u>							
<u>CENTRAL REGION - DISTRIBUTION</u>							
Provide Service Extensions - Central	0	390	137	253	390	0	
Upgrade Distribution Systems - Central	0	541	69	472	541	0	
Upgrade Distribution Line - Nippers Harbour - Burlington	0	367	0	367	367	0	
Install Mid Span Poles - Simmons Site	0	217	59	171	230	(13)	
Replace Poles - Bottom Waters System	0	163	38	146	184	(21)	
Replace Poles - Bay D'Espoir System	0	126	35	91	126	0	
Replace Sectionalizer - Milltown	0	71	11	66	77	(6)	
Replace Poles - South Brook and Kings Point System	0	133	28	110	138	(5)	
Replace Mid Span Poles - South Brook System	0	120	16	118	134	(14)	
Replace Poles - South Brook and King's Point System	0	26	0	26	26	0	
<u>CENTRAL REGION - GENERATION</u>							
Purchase Diesel Overspeed Protection - Central Diesel Plants	83	18	24	(6)	18	0	
Modify Coolant System - Recontre East	20	76	66	10	76	0	
Replace 300kW Diesel Unit No. 245 - St. Brendan's	0	462	2	218	220	242	Note 4
Replace 136kW Diesel Unit No. 278 - McCallum	0	220	1	208	209	11	
Replace 250kW Diesel Unit No. 2027 - McCallum	0	209	1	250	251	(42)	
Replace 136kW Diesel Unit No. 273 - Grey River	0	153	0	153	153	0	
Install Fire Alarm Systems - Francois	0	48	2	46	48	0	
Replace 136kW Diesel Unit No. 284 - Hr. Deep	0	11	0	11	11	0	
Replace 75kW Diesel Unit No. 252 - Petites	0	36	0	36	36	0	
Replace 136kW Diesel Unit No. 279 - Grey River	0	11	0	11	11	0	
<u>NORTHERN REGION - DISTRIBUTION</u>							
Provide Service Extensions - Northern	0	320	130	190	320	0	
Upgrade Distribution System - Northern	0	602	61	541	602	0	
<u>NORTHERN REGION - GENERATION</u>							
Purchase Diesel Overspeed Protection - Northern Diesel Plants	130	3	32	(29)	3	0	
Purchase and Install Metering - Norman Bay	5	2	4	(2)	2	0	
Increase Generation Capacity - Charlottetown	657	886	603	283	886	0	
<u>LABRADOR REGION - DISTRIBUTION & TERMINALS</u>							
Provide Service Extensions - Labrador	0	317	51	266	317	0	
Upgrade Distribution Systems - Labrador	0	162	0	162	162	0	
Purchase and Install Recloser - Rigolet	0	68	32	49	81	(13)	
Supply and Install By-Pass Switches - Townsite Substation, Lab City	0	41	3	40	43	(2)	

**NEWFOUNDLAND & LABRADOR HYDRO
RURAL SYSTEMS
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REGIONAL OPERATIONS							
LABRADOR REGION - GENERATION							
Purchase Diesel Overspeed Protection - Labrador Diesel Plants	115	18	17	1	18	0	
Replace/Install Plant Lifting Devices at Makkovik, Postville & Black Tickle	120	25	0	25	25	0	
Purchase/Install Overhead Cranes - Mary's Hr. & Port Hope Simpson	61	25	0	25	25	0	
Purchase Lifting Device - Rigolet Diesel Plants	38	12	0	12	12	0	
Replace Lifting Device - Hopedale Diesel Plants	97	7	0	7	7	0	
Replace 250kW Diesel Unit No. 241 - Postville	0	331	2	329	331	0	
Modify for Environmental Issues - North Plant	0	147	2	33	35	112	Note 5
Increase Transformer Capacity - Black Tickle	1	115	37	78	115	0	
Modify North Plant Mechanical - Happy Valley	0	100	2	131	133	(33)	
Modify North Plant for Saftey Items - Happy Valley	0	77	2	84	86	(9)	
Modify North Plant 5kV Station Service - Happy Valley	0	65	0	63	63	2	
Replace 300kW Diesel Unit No. 288 - Black Tickle	0	11	0	11	11	0	
Replace 250kW Diesel Unit No. 293 - Rigolet	0	11	0	11	11	0	
TOTAL CONSTRUCTION PROJECTS	1,327	6,743	1,467	5,067	6,534	209	
REGIONAL OPERATIONS							
PROPERTY ADDITIONS							
NORTHERN REGION							
Install Air Conditioning - Port Saunders Regional Office	0	138	0	138	138	0	
Construct Fence Extension - St. Anthony	0	39	1	38	39	0	
Install Sewer Hookup - St. Anthony	0	26	2	24	26	0	
Construct Lube Oil Storage Ramp - Hawkes Bay	0	5	0	5	5	0	
Construct Lube Oil Storage Ramp - St. Anthony	0	5	0	5	5	0	
LABRADOR REGION							
Construct Storage Ramps - Lab West	0	12	1	11	12	0	
Purchase 0.279 Hectares of Land - Wabush	0	9	9	0	9	0	
TOTAL PROPERTY ADDITIONS	0	234	13	221	234	0	
TOOLS & EQUIPMENT							
CENTRAL REGION							
Purchase & Replace Tools & Equipment Less than \$ 50,000	0	30	0	30	30	0	
NORTHERN REGION							
Purchase & Replace Tools & Equipment Less than \$ 50,000	0	118	0	118	118	0	
LABRADOR REGION							
Purchase & Replace Tools & Equipment Less than \$ 50,000	0	68	15	53	68	0	
METERING							
Purchase & Replace Tools & Equipment Less than \$ 50,000	0	12	0	12	12	0	
TOTAL TOOLS & EQUIPMENT	0	228	15	213	228	0	

NEWFOUNDLAND & LABRADOR HYDRO
RURAL SYSTEMS
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<u>NEW POWER PLANTS</u>							
Construct New Diesel Plant - Nain	93	3,847	35	3,812	3,847	0	
TOTAL NEW POWER PLANTS	93	3,847	35	3,812	3,847	0	
<u>MAJOR UPGRADING</u>							
<u>POWER PLANTS</u>							
Provide Bulk Fuel Storage-Fuel Metering Program-Cent. Northern & Lab Pits	456	183	87	96	183	0	
Upgrade Diesel Plant - McCallum	39	986	67	967	1,034	(48)	
Upgrade Diesel Plant - Harbour Deep		35	0	35	35	0	
TOTAL POWER PLANTS	495	1,204	154	1,098	1,252	(48)	
<u>METERING</u>							
Purchase Meters & Equipment - TRO System	0	169	2	137	139	30	
Purchase Metering Tanks - TRO System	0	50	0	50	50	0	
TOTAL METERING	0	219	2	187	189	30	
TOTAL RURAL SYSTEMS	1,915	12,475	1,686	10,598	12,284	191	

NEWFOUNDLAND & LABRADOR HYDRO
GENERAL PROPERTIES
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<u>INFORMATION SYSTEMS & TELECOMMUNICATIONS</u>							
<u>SOFTWARE APPLICATIONS</u>							
<u>NEW INFRASTRUCTURE</u>							
Upgrade Lotus Notes Applications	73	82	11	71	82	0	
Purchase and Install Helpdesk Application	40	83	83	0	83	0	
Review, Implement and Supply Network Management Tools	28	75	71	4	75	0	
Purchase Additional Corporate Applications	0	205	20	185	205	0	
<u>UPGRADE OF TECHNOLOGY</u>							
JDE Migrate to One World (Equipment Only)	0	155	0	155	155	0	
TOTAL SOFTWARE APPLICATIONS	141	600	185	415	600	0	
<u>COMPUTER OPERATIONS</u>							
<u>INFRASTRUCTURE REPLACEMENT</u>							
Purchase Backup Services for Servers and Desktops	37	170	0	170	170	0	
Upgrade Corporate WAN Infrastructure	0	134	0	134	134	0	
Replacement of Printers	0	122	35	87	122	0	
<u>NEW INFRASTRUCTURE</u>							
Provide Three LCD Projectors - Hydro Place	0	39	0	39	39	0	
<u>UPGRADE OF TECHNOLOGY</u>							
Upgrade Windows 2000 Servers	0	155	0	155	155	0	
Replacement of Desktop Peripherals	0	18	3	15	18	0	
TOTAL COMPUTER OPERATIONS	37	638	38	600	638	0	

NEWFOUNDLAND & LABRADOR HYDRO
GENERAL PROPERTIES
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<u>INFORMATION SYSTEMS & TELECOMMUNICATIONS</u>							
<u>NETWORK SERVICES</u>							
<u>INFRASTRUCTURE REPLACEMENT</u>							
Provide Global Positioning System Time Synchronization	58	98	45	53	98	0	
Upgrade EMS Hardware for Information Delivery System at E.C.C.	1	86	64	22	86	0	
Replace Remote Terminal Unit for Hydro - Phase 1	160	83	66	17	83	0	
Install Microwave System between Energy Control Centre and Sunnyside	150	10,573	98	10,475	10,573	0	
Upgrade Local Area Networks(LANs)-Holyrood, Bishop's Falls & Hydro Place	0	731	0	731	731	0	
Replace Datalok Alarm & Monitoring System	0	434	0	434	434	0	
Upgrade Communications Link between Powerhouse and Intake-Cat Arm	0	311	2	309	311	0	
Upgrade Battery System - HLS, HLI, HLC, IRV & Dome Mountain	0	211	23	188	211	0	
Replace Mini-Quics System at Deer Lake Station for Cat Arm System	0	137	0	137	137	0	
Replace Standby Generator Systems - Blue Grass Hill & Mary March Hill	0	82	0	82	82	0	
Replace Remote Terminal Unit for Hydro - Phase 2	0	80	0	80	80	0	
Replace Dome Mountain Bldg (Lake Melville Repeater)	0	70	1	69	70	0	
Construct Building - Springdale Terminal Station	0	69	5	64	69	0	
Replace Battery Banks-Energy Management Systems-Energy Control Centre	0	65	1	64	65	0	
Replace Powerline Carrier Equipment - Transmission System - West Coast	0	300	22	278	300	0	
<u>UPGRADE OF TECHNOLOGY</u>							
Upgrade Site Grounding at Telecontrol Site - Phase 2	0	44	0	44	44	0	
TOTAL NETWORK SERVICES	369	13,374	327	13,047	13,374	0	
TOTAL INFORMATION SYSTEMS & TELECOMMUNICATIONS	547	14,612	550	14,062	14,612	0	
<u>ADMINISTRATIVE</u>							
<u>VEHICLES</u>							
Replace Vehicles - Rural Systems	0	157	119	38	157	0	
Replace Vehicles	0	1034	162	872	1,034	0	
<u>ADMINISTRATION</u>							
Re-Construct Two Storage Ramps - Central Stores - Bishop's Falls	39	26	1	25	26	0	
Replace Security System - Hydro Place	0	67	0	69	69	(2)	
Purchase Colour Copier - Office Services - Hydro Place	0	74	0	74	74	0	
Purchase & Replace Admin Office Equip less than \$50,000	0	107	4	103	107	0	
TOTAL ADMINISTRATIVE	39	1,465	286	1,181	1,467	(2)	
TOTAL GENERAL PROPERTIES	586	16,077	836	15,243	16,079	(2)	

NEWFOUNDLAND & LABRADOR HYDRO
CONTINGENCY FUND
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<u>CONTINGENCY FUND</u>							
2000 Carryover Contingency Fund Projects							
Preliminary Engineering TI 218/236	96	62	3	59	62	0	
Upgrade Distribution Line - Green Island Brook	176	51	129	0	129	(78)	Note 6
Purchase Gas Detector Monitor	0	7	0	7	7	0	
2001 Contingency Fund Projects							
Replacement of Poles TL215 - (69kV Doyles - Port aux Basques	0	73	0	73	73	0	
Supply and Install Liner for Tank Farm - Harbour Deep	0	85	2	83	85	0	
Transfer/Install Diesel Unit #290 (Charlottetown - Williams Harbour)	0	11	0	11	11	0	
Unexpended Contingency Fund	0	831	0	831	831	0	
TOTAL CONTINGENCY FUND	272	1,120	134	1,064	1,198	(78)	

GENERATION:

1. **Replace Halon 1301 Fire Protection Systems for Generation System**
Competitive tendering has resulted in a contract price much lower than the original estimate.

2. **Replacement of Piping on Surge Tank - Bay d'Espoir**
Competitive tendering has resulted in a contract price much lower than the original estimate.

TRANSMISSION:

3. **Upgrade TL262 (69kV Daniels Harbour - Peter's Barron)**
More detail engineering work has determined that the re-routing of TL262 will have to traverse an area with higher than anticipated construction cost (bog area).

RURAL SYSTEM:

4. **Replace 300kW Diesel Unit No. 245 - St. Brendan's**
The budget estimate was somewhat conservative and based on a 300kW unit. It has since been determined that a 275kW unit will meet forecast load requirements.

5. **Modify for Environmental Issues - North Plant**
More detail engineering work identified a more cost effective method of addressing the environmental issues associated with the pit and drainage system.

CONTINGENCY FUND:

6. **Upgrade Distribution Line - Green Island Brook**
Hydro crews had been mobilized from other areas to complete the project with one or two outages. Severe weather prevented the work from proceeding on time. When work began, only a portion of the work was completed, again due to inclement weather. The latest estimate provides for the project to be completed when outages can be arranged during suitable weather conditions with less impact on customers.