

IN THE MATTER OF the *Public Utilities Act*, (the "Act"); and

IN THE MATTER OF an Application by Newfoundland Power Inc. for approval to proceed with the construction and purchase of certain improvements and additions to its property pursuant to Section 41(3) of the Act.

TO: The Board of Commissioners of Public Utilities (the "Board")

THE APPLICATION OF Newfoundland Power Inc. (the "Applicant") **SAYS THAT:**

1. The Applicant is a corporation duly organized and existing under the laws of the Province of Newfoundland, is a public utility within the meaning of the Act, and is subject to the provisions of the *Electrical Power Control Act, 1994*.
2. The Applicant has conducted a detailed review of a number of its distribution feeders on which customers have experienced significantly lower than average reliability. As a result of the review, the Applicant has determined that it is necessary to increase capital expenditure by \$2,297,000 on Distribution and Transmission projects. Schedule A, pages 1 - 3, contains detailed Project Justification information.
3. The Applicant has determined that the incidence of deterioration of distribution transformers is higher than initially projected. As a result, it is necessary to allow for an increased number of replacements in the Applicant's deteriorated transformer replacement program. In Order P.U. 36 (1998-99), the Board approved expenditures of \$2,225,000 for the replacement of deteriorated transformers. Expenditure requirements have increased by \$875,000, for a total of \$3,100,000. Schedule A, page 4, contains detailed Project Justification information.
4. The woodstave penstock supplying water to the Applicant's hydroelectric generating plant at Petty Harbour has deteriorated and considerable leakage of water is occurring in proximity to the local highway. The resultant icing of the roadway in the winter months is a public safety hazard. The total estimated cost of the necessary replacement of the portion of woodstave penstock along the road with steel is \$700,000. Schedule A, page 5, contains detailed Project Justification information.
5. On February 20th, 1999, as a result of a sleet storm on the Port au Port Peninsula, the Applicant's transmission line 410L sustained major damage. In rebuilding the damaged transmission line, the Applicant has incurred capital expenditures in the amount of \$161,000. Schedule A, page 6, contains detailed Project Justification information.

6. On April 5th and 6th, 1999, as a result of a snowstorm on the Avalon Peninsula, the Applicant's transmission and distribution system in its St. John's and Avalon operating regions sustained major damage. In rebuilding the damaged transmission and distribution lines, the Applicant has incurred capital expenditures in the amount of \$221,000. Schedule A, page 7, contains detailed Project Justification information.
7. As a result of unforeseen circumstances, six new capital projects have been added to the Applicant's 1999 Capital Budget. It has also been necessary to increase the level of capital expenditure on meters approved in Order P.U. 36 (1998-99). Schedule A, pages 8 - 12, contains detailed Project Justification information.
8. The Applicant has determined that it is appropriate to defer certain approved 1999 capital projects totalling \$1,294,000. Schedule B, page 1, contains a revised summary of the Applicant's 1999 Capital Budget. Schedule B, page 2, lists all projects over \$50,000 proposed to be deferred or cancelled.
9. The proposed expenditures as specified by the Applicant are necessary to continue to provide service and facilities which are reasonably safe and adequate and just and reasonable, all as required pursuant to s. 37 of the Act.
10. Communications with respect to this Application should be sent to Peter Alteen, Counsel for the Applicant.
11. **THE APPLICANT REQUESTS** that the Board approve, pursuant to Section 41 (3) of the Act, the Applicant's proceeding with the purchase and construction of the improvements and additions to its property as set out in this Application.

DATED at St. John's, Newfoundland, this 18th day of June, 1999.

NEWFOUNDLAND POWER INC.



Peter Alteen
Counsel for the Applicant
Newfoundland Power Inc.
P.O. Box 8910
55 Kenmount Road
St. John's, Newfoundland
A1B 3P6

Telephone: (709) 737-5859
Telecopier: (709) 737-2974

IN THE MATTER OF the *Public Utilities Act*, (the "Act"); and

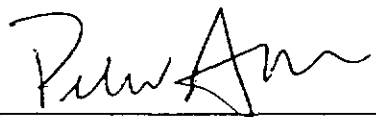
IN THE MATTER OF an Application by Newfoundland Power Inc. for approval to proceed with the construction and purchase of certain improvements and additions to its property pursuant to Section 41(3) of the Act.

AFFIDAVIT

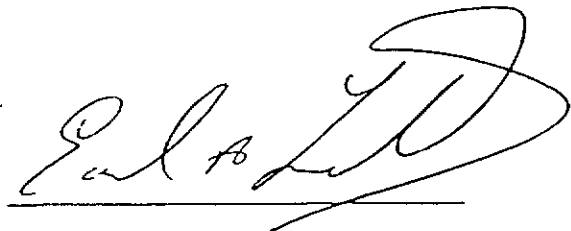
I, Earl A. Ludlow, of Paradise, in the Province of Newfoundland, Professional Engineer, make oath and say as follows:

1. That I am employed by the Applicant, Newfoundland Power Inc., as Vice-President, Operations.
2. That to the best of my knowledge, information and belief, all matters, facts and things set out in the within Application are true.

SWORN to before me at St. John's
in the Province of Newfoundland
this 18th day of June, 1999,
before me:



Barrister



Earl A. Ludlow

RELIABILITY INITIATIVE - DISTRIBUTION

Project Cost

Project	Original Budget	Revised Budget	Budget Increase
Rebuild Feeder Frenchman's Cove (FRN-02)	\$ --	\$ 336,000	\$ 336,000
Rebuild Feeder Dunville (DUN-01)	100,000	1,135,000	1,035,000
Rebuild Feeder Old Perlican (OPL-01)	384,000	720,000	336,000
Reconductor Feeder Riverhead (RVH-01)	100,000	371,000	271,000
Reconductor Feeder Abraham's Cove (ABC-02)	40,000	108,000	68,000
Relocate Feeder Long Lake (LGL-01)	17,000	81,000	64,000
Total	\$ 641,000	\$2,751,000	\$2,110,000

Nature of Project

As part of the Company's continued effort to maintain and improve reliability, it has identified a number of projects that need immediate attention. These projects will involve the replacement of conductor, insulators and/or structures on a number of feeders which supply customers that experience higher than average power interruptions.

Customer Impact

These projects will reduce the number of power interruptions experienced by customers.

Project Justification

These projects are justified based on reliability improvement. Customers supplied by these feeders experience power interruptions significantly more often than the Company average. As a result the Company has advanced the schedule for improving the performance of these feeders. The average interruption statistics from 1996 - 1999 of customers supplied by the feeders on which work is scheduled is shown in the following table.

Feeder	# of Customers	SAIFI* interruptions/year	SAIDI** hours / year
Frenchman's Cove (FRN-02)	663	10.96	21.99
Dunville (DUN-01)	769	14.95	25.79
Old Perlican (OPL-01)	827	8.43	28.05
Riverhead (RVH-01)	1052	9.57	19.51
Abraham's Cove (ABC-02)	912	6.48	18.28
Long Lake (LGL-01)	552	11.13	21.18
Company Average		4.48	5.43

Future Commitments

None.

Notes:

* System Average Interruption Frequency Index (SAIFI) is the average number of interruptions per customer. It is calculated by dividing the number of customers that have experienced an outage by the total number of customers in an area.

** System Average Interruption Duration Index (SAIDI) is the average interruption duration per customer. It is calculated by dividing the number of customer-outage-hours (e.g., a two hour outage affecting 50 customers equals 100 customer-outage-hours) by the total number of customers in an area.

RELIABILITY INITIATIVE - TRANSMISSION

Project Cost

Project	Original Budget	Revised Budget	Budget Increase
Replace Poles, Cross-Arms and Insulators on:			
55L - Blaketown to Clarke's Pond	\$ 35,000	\$155,000	\$120,000
94L - Blaketown to Riverhead	40,000	67,000	27,000
95L - Riverhead to Trepassey	45,000	85,000	40,000
Total	\$120,000	\$307,000	\$187,000

Nature of Project

As part of the continuing effort to maintain and improve reliability, the Company has assigned a high priority on the upgrading of transmission lines 55L, (Blaketown Substation to Clarke's Pond Substation), 94L (Blaketown Substation to Riverhead Substation) and 95L (Riverhead Substation to Trepassey).

Customer Impact

These projects will reduce the number of power interruptions experienced by customers.

Project Justification

These projects are justified based on reliability improvement.

Future Commitments

None.

TRANSFORMERS

Project Cost

<u>Original Budget</u>	<u>Revised Budget</u>	<u>Increase</u>
\$2,225,000	\$3,100,000	\$875,000

Nature of Project

In 1997 the Company began a distribution transformer initiative. This initiative will ensure the integrity of the electrical grounding of transformers, which will impact reliability and employee safety, and will identify and remove heavily corroded transformers. Early in 1999, a field survey determined that the deterioration of transformers in inland areas was more severe than expected. To meet the requirement to replace additional units and address the corrosion problem, the number of units budgeted for replacement was increased. Also the new units will be galvanized increasing the cost of each transformer by about 10%.

Customer Impact

This project will reduce the number of spills and potentially reduce the number of power interruptions experienced by customers.

Project Justification

These projects are justified based on environmental concerns, reliability concerns, employee safety and the reduced cost of oil spill cleanup.

Future Commitments

None.

REPAIR PENSTOCK - PETTY HARBOUR

Project Cost \$700,000

Nature of Project

The woodstave penstock at Petty Harbour is leaking and posing a public safety risk to an adjacent road. In order to address this problem it is necessary to replace the woodstave portion of the penstock which is adjacent to the road with a steel penstock. The penstock will be realigned to increase the distance between it and the road. The public safety issue is due to the resultant icing of the roadway in winter.

Customer Impact

This project will impact public safety.

Project Justification

This project is necessary to ensure public safety and was recommended and subsequently agreed to by the local town council. The public safety concerns necessitates this project being completed before the 1999-2000 winter season. This project replaces a project that would have seen the relocation and replacement of the penstock which was estimated to cost between \$2.5 and \$3.0 million. The original project was scheduled to be completed in 2000.

Future Commitments

None.

STORM DAMAGE - FEBRUARY 1999

Project Cost \$161,000

Nature of Project

On February 20th and 21st, 1999 a sleet storm resulted in extensive damage to the power system in the Stephenville Area. To restore power to customers, it was necessary to make extensive repairs to the 410L transmission line which serves the Port au Port Peninsula.

Customer Impact

Approximately 1,600 customers were impacted by the failure of the transmission line.

Project Justification

It was necessary to rebuild the damaged line as soon as possible after the storm to ensure a reliable power supply to the affected customers.

Future Commitments

None.

STORM DAMAGE - APRIL 1999

Project Cost

Distribution	\$ 188,000
Transmission	33,000
Total Cost	\$ <u>221,000</u>

Nature of Project

On April 5th and 6th, 1999 a snow storm resulted in extensive damage to the power system on the Avalon Peninsula. To restore power to customers, it was necessary to make repairs to over 50 distribution and transmission lines.

Customer Impact

Approximately 40,000 customers experienced an interruption in their power supply as a result of the damage.

Project Justification

It was necessary to rebuild the damaged lines as soon as possible after the storm to ensure a reliable power supply to the affected customers.

Future Commitments

None.

REPLACE INSULATORS - ABRAHAMS COVE SUBSTATION

Project Cost \$62,000

Nature of Project

This project was part of the program to replace bus and switch insulators at various substations. Subsequent to a February storm, when making permanent repairs to transmission line 410L, the insulators at the Abraham's Cove substation ("ABC") were replaced. The substation work had been originally scheduled to be completed during 2000. To make permanent repairs to 410L, the Company brought in its mobile generation to supply the customers normally supplied from ABC. The mobile generation allowed the substation to be de-energized and the Company took advantage of the situation to have the substation bus and switch insulators replaced

Customer Impact

This project avoided the future cost of installing a portable substation. This project will contribute to an improvement in the reliability of service to customers.

Project Justification

This project was justified on the basis of replacement of defective equipment, reliability and safety.

Future Commitments

None.

RELOCATE LINE - 64L

Project Cost \$60,000

Nature of Project

This project involves the relocation of poles on transmission line 64L. The poles are being relocated to prevent contact between the conductor on 64L with conductor on a nearby Newfoundland and Labrador Hydro line. 64L is a transmission line that runs between Western Avalon Terminal Station and Blaketown Substation.

Customer Impact

This project will contribute to the improvement of reliability.

Project Justification

This project is justified on the basis of reliability .

Future Commitments

None.

BLADE REPLACEMENT AND UNIT MODIFICATION - GREENHILL GAS TURBINE

Project Cost \$275,000

Nature of Project

In June 1998, the Greenhill Gas Turbine Engine was damaged by fire. During the fall, the unit was repaired in Scotland. The overhaul facility recommended a safety modification which was subsequently completed. During final testing in December, additional problems were discovered with the turbine blades which necessitated their replacement. The damaged blades were not attributed to the fire.

This work was completed in February 1999 and the unit is back in service.

Customer Impact

This project will ensure the security of supply to customers by maintaining the gas turbine to provide backup generation for emergency situations.

Project Justification

The work was necessary to ensure the continued availability of the gas turbine for providing backup for emergency situation.

Future Commitments

None.

ENVIRONMENTAL COMPLIANCE INITIATIVES

Project Cost

Fuel Oil Pipe Assessment and Replacement	\$ 110,000
Tanker - portable gas turbine	\$ 80,000
Greenhill Dike Liner	\$ 50,000
Total	\$ 240,000

Nature of Project

An environmental review in late 1998 identified a number of items that require attention. An analysis of the environmental risk associated with these items indicated the work should be completed in 1999. A description of each project follows:

Fuel Oil Pipe Assessment and Replacement:	This project involves the assessment of the fuel pipes used to service the Salt Pond and Greenhill gas turbines and any necessary replacement and repairs. To conduct this work it is necessary to remove and replace the insulation and heat tracing covering the pipes.
Tanker:	The fuel tanker used for servicing the portable gas turbine is deteriorated and will be replaced with a unit that provides additional containment in the event of a fuel spill.
Greenhill Dike Liner:	A section of the existing dike liner is below standard and will be replaced.

Customer Impact

The customer impact for this project will be indirect. If these projects are not undertaken, there will be increased risk to the environment.

Project Justification

The work is necessary to minimize risk to the environment. The work also ensures the continued availability of the Salt Pond, Greenhill and portable gas turbines for providing backup generation for emergency situation.

Future Commitments

None.

PURCHASE METERS

Project Cost

<u>Original Budget</u>	<u>Revised Budget</u>	<u>Increase</u>
\$397,000	\$547,000	\$150,000

Nature of Project

During the annual testing process, Measurements Canada determined a higher than expected number of meters needed to be replaced. This will result in an increase in the number of meters to be purchased in 1999.

Customer Impact

This will ensure the accuracy of the metering of customer energy consumption.

Project Justification

Necessary to ensure the accuracy of the metering of customer energy consumption.

Future Commitments

None.

Newfoundland Power Inc.
1999 Capital Budget
Budget Summary
(\$'000)

	<u>Substations</u>	<u>Transmission</u>	<u>Distribution</u>	<u>General Property</u>	<u>Transportation</u>	<u>Total</u>
Head Office	130	-	647	2,207	-	2,984
St. John's	1,488	463	6,964	78	532	9,525
Avalon	316	1,010	3,922	50	285	5,583
Burin	130	85	595	58	175	1,043
Bonavista	171	47	670	161	221	1,270
Gander	240	180	798	39	71	1,328
Grand Falls	75	77	640	35	159	986
Corner Brook	229	40	1,059	19	153	1,500
Stephenville	210	212	848	59	350	1,679
	<u>2,989</u>	<u>2,114</u>	<u>16,143</u>	<u>2,706</u>	<u>1,946</u>	<u>25,898</u>
Other:						
Energy Supply						7,085
Telecommunications						453
Information Systems						<u>3,834</u>
Capital Expenditures Before General Expenses Capital						<u>37,270</u>
General Expenses Capital						2,626
TOTAL CAPITAL EXPENDITURE						<u><u>39,896</u></u>

Newfoundland Power Inc.
1999 Capital Budget
Budget Summary
(\$'000)

Deferred and Cancelled Projects:

Reconductor Feeder - Victoria (VIC-02)	\$ 75
Replace Insulators - 41L (Hearts Content to Carbonear)	68
Replace Bus & Switch Insulators - Gander Bay Substation	51
Client Server Backup Hardware/Software	450
Mail Room Equipment	250
Raise Level Of Sandy Lake Dam	180
Rehabilitate Interior of Penstock - Horse Chops	100
Replace Switchgear - St. John's Diesel	60
Turbine Pit Rehabilitation - Mobile	60

Total Deferred and Cancelled Projects Over \$50,000

\$ 1,294