

**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 and Labrador, is a public utility within the meaning of the Act, and is subject to the provisions of the *Electrical Power Control Act, 1994*.
2. In Order No. P.U. 24 (2000-2001) the Board approved expenditures of \$900,000 for the replacement of the surge tank at the Applicant's Cape Broyle Hydroelectric Plant (the "Plant").
3. The wood stave penstock supplying water to the Plant is 48 years old and is in a deteriorated condition. Based on the condition of the penstock, it was scheduled to be replaced in 2003.
4. The Applicant has determined that it can eliminate the need for a surge tank at the Plant by replacing the wood stave penstock with a steel penstock designed to withstand the additional pressure a surge tank is intended to accommodate. The estimated cost to replace the wood stave penstock with the steel penstock is \$1,100,000. Schedule A, pages 1 and 2, contains a detailed justification of the project.
5. In Order No. P.U. 24 (2000-2001) the Board approved expenditures of \$102,000 to upgrade a section of Bay L'Argent (BLA-01) distribution feeder to improve service reliability.
6. The Applicant has completed a review of electric service reliability on the Burin Peninsula and has determined that additional expenditures are required to improve the reliability of service to the area. The Applicant proposes to undertake the following initiatives:
  - (a) Construct a new substation at Lawn at an estimated cost of \$690,000 thus allowing the Applicant to retire approximately 13 kilometres of the Laurentian (LAU-02) distribution feeder between St. Lawrence and Lawn, and to avoid the cost of rebuilding that portion of the feeder to a higher design standard.
  - (b) Rebuild sections of the Laurentian (LAU-02) distribution feeder totalling 38 kilometres between Lawn and Point May at an estimated cost of \$687,000.

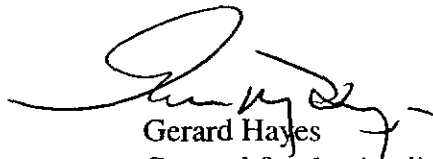
- (c) Rebuild additional segments of the Bay L'Argent (BLA-01) distribution feeder between Bay L'Argent and Rushoon and between Bay L'Argent and Harbour Mille at an estimated cost of \$943,000.
- (d) Upgrade transmission lines 301L, 302L and 305L serving the Salt Pond, Grand Bank and Laurentian substations at an estimated cost of \$250,000.

Schedule A, pages 3 to 7, contains detailed justifications of these projects.

- 7. The Applicant has determined that it is appropriate to defer certain approved 2001 capital projects totalling \$953,000. Schedule B, page 1, contains a revised summary of the Applicant's 2001 Capital Budget. Schedule B, page 2, lists the projects to be deferred or cancelled.
- 8. The proposed expenditures 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.
- 9. Communications with respect to this Application should be sent to Gerard Hayes, Counsel for the Applicant.
- 10. **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, and the deferral or cancellation of previously approved expenditures, as set out in this Application.

DATED at St. John's, Newfoundland, this 11<sup>th</sup> day of July, 2001.

**NEWFOUNDLAND POWER INC.**



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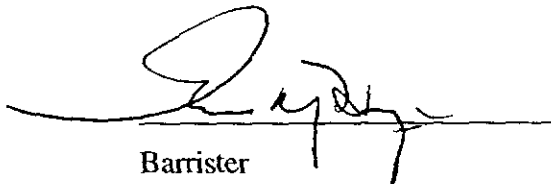
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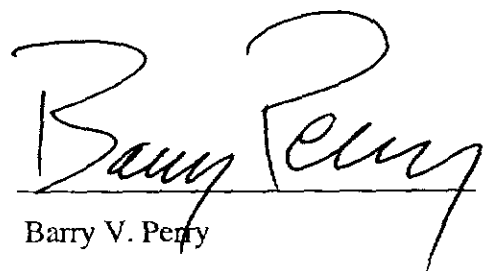
**AFFIDAVIT**

I, Barry V. Perry, of Mount Pearl in the Province of Newfoundland, make oath and say as follows:

1. That I am Vice-President, Finance and Chief Financial Officer of Newfoundland Power Inc.
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 11<sup>th</sup> day of July, 2001,  
before me:

  
Barrister

  
Barry V. Perry

## **REPLACE PENSTOCK - CAPE BROYLE**

### **Project Cost**

\$1,100,000

### **Nature of Project**

This project is necessary for the replacement of a deteriorated 425-metre wood stave penstock at the Cape Broyle Hydroelectric Plant with a steel penstock, and will allow the Company to decommission the existing deteriorated surge tank. A report prepared by Varcon Inc., an engineering consultant, recommended that, due to its deteriorated condition, the surge tank should be replaced.

### **Customer Impact**

The replacement of the wood stave penstock with a steel penstock will eliminate the need for a surge tank as part of the Cape Broyle hydroelectric generation system, ensuring the continued safe operation of the hydro plant. This project will also ensure the lowest possible power rate to customers by maintaining existing hydro generation, thus reducing the requirement for more expensive purchased power.

### **Project Justification**

The existing surge tank is deteriorated and its continued use is not consistent with the safe operation of the plant. The estimated cost to replace the surge tank is \$900,000.

The existing wood stave penstock is approximately 48 years old and was tentatively scheduled to be replaced in 2003 at an estimated cost of \$1,100,000. The Company has determined that using a steel penstock to replace the wood stave penstock would eliminate the need for a surge tank, thus eliminating the expenditure of \$900,000 to replace it.

The Cape Broyle Hydroelectric Plant has an annual production of approximately 34 GWh. Replacing the energy produced by this facility by increasing production at the Holyrood generation facility would require approximately 56,000 barrels of fuel annually. At current oil prices, this would translate into a fuel cost of approximately \$1.7 million annually.

The Company will ensure this project is completed at the lowest possible cost consistent with reliable service. All material and contract labour will be obtained through competitive tendering.

**Future Commitments**

None.

## **DISTRIBUTION RELIABILITY INITIATIVE**

### **Project Cost**

<u>Original Budget</u>	<u>Revised Budget</u>	<u>Increase</u>
\$1,856,000	\$3,223,000	\$1,367,000

### **Nature of Project**

This project is necessary to improve service reliability on distribution lines with below-average reliability. The project involves the upgrading of trunk feeder structures and equipment to reduce both the frequency and duration of power interruptions to the customers served by the distribution line. The nature of the upgrading work follows from a detailed assessment of past problems, knowledge of local environmental conditions (such as salt contamination and wind and ice loading), and engineering knowledge to apply location specific design and construction standards. Project plans are subsequently developed from an engineering analysis and options are evaluated that improve reliability performance.

### **Customer Impact**

The customers served by the feeders selected for upgrading will experience reductions in both the number of power interruptions and the duration of outages that may occur.

### **Project Justification**

These projects are justified on the basis of reliability improvement. Customers supplied by these feeders experience power interruptions significantly more often than the Company average.

Individual feeder projects have been prioritized based on their historic SAIFI and SAIDI statistics, with consideration for the costs, the number of customers affected, and judgment as to the reliability improvement that can be expected as a result of the line upgrade project. The Company re-evaluated the relative priority of planned feeder upgrades following the most recent winter period and determined that it is necessary to rebuild most of the Bay L'Argent (BLA-01) feeder (additional to a 6-kilometre section already included in the approved 2001 budget), as well as segments of the Laurentian (LAU-02) feeder totalling 38 kilometres. Based on the re-assessment of relative priority, work on the Abraham's Cove (ABC-02), Trepassey (TRP-01) and Indian Cove (IND-01) feeders is to be deferred.

The following table outlines the overall changes to the Distribution Reliability Initiative budget category for 2001.

<b>Feeder</b>	<b>Original Budget (000s)</b>	<b>Revised Budget (000s)</b>	<b>Difference (000s)</b>
Holyrood-01	\$ 400	\$ 400	\$ 0
Trepassey-01	150	50	(100)
Old Perlican-02	400	400	0
Bay L' Argent-01	102	1,045	943
Frenchman's Cove-02	40	40	0
Laurentian-02	0	687	687
Abraham's Cove-02	50	0	(50)
Robinson's-02	376	376	0
Doyle's-01	225	225	0
Indian Cove-01	113	0	(113)
<b>Total</b>	<b>\$1,856</b>	<b>\$3,223</b>	<b>\$1,367</b>

The Company will ensure this project is completed at the lowest possible cost consistent with reliable service. All material and contract labour will be obtained through competitive tendering.

#### **Future Commitments**

None.

## **REPLACE POLES AND CROSSARMS**

### **Project Cost**

\$250,000

### **Nature of Project**

This project is necessary to replace poles, crossarms, insulators and miscellaneous hardware due to deficiencies identified during detailed inspections of three transmission lines on the Burin Peninsula. The work is to be carried out on transmission lines 301L (Salt Pond to Grand Bank), 302L (Salt Pond to St. Lawrence) and 305L (Grand Bank to St. Lawrence).

### **Customer Impact**

This project maintains the structural integrity of three transmission lines on the Burin Peninsula, and addresses upgrade requirements identified during inspections. This is critical for the reliable performance and safe operation of the transmission system on the Burin Peninsula.

### **Project Justification**

Replacement of transmission line equipment is necessary to prevent service interruptions. The Company's experience with reliability problems on the Burin Peninsula resulting from the harsh weather conditions of the past winter necessitates additional expenditures to correct deficiencies identified on transmission lines in the area.

The Company will ensure this project is completed at the lowest possible cost consistent with reliable service. All material and contract labour will be obtained through competitive tendering.

### **Future Commitments**

None.

## **BUILD NEW SUBSTATION - LAWN**

### **Project Cost**

\$690,000

### **Nature of Project**

This project is necessary to replace deteriorated electrical equipment. This project will establish a new 66 kV substation near the community of Lawn.

The project cost is based on a detailed engineering estimate for the establishment of this substation.

### **Customer Impact**

This project will improve the reliability and continuity of electrical service to customers in the area.

### **Project Justification**

This project is the least cost alternative available to improve the reliability of electric service to customers in the Lawn to Point May area. The existing distribution feeder (Laurentian-02) has experienced very poor reliability and is in need of rebuilding. This problem was highlighted by the harsh weather conditions experienced in the area this past winter.

The 13-kilometre section of the feeder between St. Lawrence and Lawn is especially prone to high winds, ice loading and salt contamination. The construction of a new substation at Lawn will allow for the retirement of that section of the feeder, and is a lower cost alternative to rebuilding it to a heavy load construction standard.

The table below summarizes the costs associated with each alternative.

<b>Alternative</b>	<b>Cost</b>
Build New Substation	\$690,000
Associated Transmission and Distribution Work <sup>1</sup>	40,000
Total Project Cost	<u>\$730,000</u>
Rebuild 13 km of Feeder	975,000
<b>Difference</b>	<b>\$245,000</b>

<sup>1</sup> Transmission costs are included in the Replace Poles and Crossarms project.  
Distribution costs are included in the Distribution Reliability Initiative project.

The Company will ensure this project is completed at the lowest possible cost consistent with reliable service. All material and contract labour will be obtained through competitive tendering.

**Future Commitments**

None.

**Newfoundland Power Inc.**  
**2001 Capital Budget**  
**Budget Summary**  
**(000s)**

	Approved By Order No. P.U. 24 (2000-2001)	Proposed Changes	Revised Budget
Energy Supply	\$ 5,419	\$ 200	\$ 5,619
Substations	2,279	584	2,863
Transmission	2,169	250	2,419
Distribution	18,701	783	19,484
General Property	1,723	-	1,723
Transportation	1,866	-	1,866
Telecommunications	683	-	683
Information Systems	3,619	-	3,619
General Expenses Capital	2,650	-	2,650
Total	<u>\$ 39,109</u>	<u>\$ 1,817</u>	<u>\$ 40,926</u>

Newfoundland Power Inc.  
2001 Capital Budget  
Proposed Changes  
(000s)

Energy Supply

Add - Replace Penstock - Cape Broyle	\$ 1,100	
Cancel - Replace Surge Tank - Cape Broyle	(900)	
Net Change		\$ 200

Substations

Add - New Substation -Lawn	\$ 690	
Defer - Projects under \$50,000	(106)	
Net Change		\$ 584

Transmission

Add - Replace Poles and Crossarms		\$ 250
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Distribution

Add - Rebuild Laurentien-02 Feeder	\$ 687	
Add - Rebuild Bay L'Argent-01 Feeder	943	
Defer - Upgrade Abraham's Cove-02 Feeder	(50)	
Defer - Upgrade Trepassey-01 Feeder	(100)	
Defer - Upgrade Indian Cove-01 Feeder	(113)	
Net change for Distribution Reliability Initiative project	\$ 1,367	

Defer - Rebuild Line - Dunville to Fox Harbour	\$ (150)	
Defer - Replace Underground Secondary - Stephenville	(50)	
Defer - Replace REA Lines - Burin	(45)	
Defer - Projects under \$50,000	(339)	
Net change for Rebuild Distribution Lines project	\$ (584)	

Net Change for Distribution Classification		\$ 783
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<b>Total Changes to 2001 Capital Budget</b>		<b>\$ 1,817</b>
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