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

IN THE MATTER OF an application by Newfoundland Power Inc. for an order pursuant to Sections 41, 78 and 80 of the Act:

(a) (i) approving its 2000 capital budget; (ii) approving leases for 2000 in excess of $5,000 per year; and (iii) approving revisions to its 1999 capital budget; and
(b) (i) fixing and determining its average rate base for 1998 in the amount of $488,204,000; (ii) approving its revised forecast average rate base for 1999 in the amount of $502,513,000; and (iii) approving its forecast average rate base for 2000 in the amount of $511,088,000; and
(c) approving revised values for rate base and invested capital for use in the automatic adjustment formula for the calculation of return on rate base for 2000 pursuant to Orders No. P.U. 16 and 36 (1998-99).

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

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

1. Newfoundland Power 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. Schedule A to this Application is a summary of Newfoundland Power's 2000 Capital Budget which includes an estimated amount of $1,500,000 in contributions in aid of construction that the Applicant intends to demand from its customers in 2000. All contributions to be recovered from customers shall be calculated in a manner approved by the Board.

3. Schedule B to this Application is a list of those 2000 capital expenditures, exclusive of general expenses capital, which comprise Newfoundland Power's 2000 Capital Budget.

4. Schedule C to this Application is a list of those leases proposed to be entered into by Newfoundland Power in 2000 where the cost of the lease is in excess of $5,000 in a year.

5. Schedule D to this Application is a list of those 1999 capital expenditures in excess of $50,000 that Newfoundland Power has determined will require additional capital expenditures in 1999.

6. Schedule E to this Application is an estimate of future required expenditures on improvements or additions to the property of Newfoundland Power that are included in the 2000 Capital Budget but will not be completed in 2000.

7. Schedule F to this Application shows the variances between 1999 capital expenditures approved by Order P.U. 36 (1998-99) and Order P.U. 6 (1999-2000) and the projected actual capital expenditures of Newfoundland Power for 1999.

8. The proposed expenditures as set out in Schedules A through F of this Application are necessary for Newfoundland Power to continue to provide service and facilities which are reasonably safe and adequate and just and reasonable as required pursuant to Section 37 of the Act.

9. Schedule G to this Application shows Newfoundland Power's actual average rate base for 1998 of $488,204,000; revised forecast average rate base for 1999 of $502,513,000; and forecast average rate base for 2000 of $511,088,000.

10. Schedule H to this Application shows Newfoundland Power's revised forecast average invested capital for 1999 of $546,275,000 and forecast average invested capital for 2000 of $566,403,000.

11. Schedule I to this Application shows the calculation of the rate of return on rate base for Newfoundland Power using test year values approved by the Board by virtue of Order No. P.U. 36 (1998-99) and the rate of return on rate base using the forecast average rate base and forecast average invested capital for 2000 as set out in paragraphs 9 and 10 of this Application.

12. The use of test year values for rate base and invested capital in establishing Newfoundland Power's allowed rate of return on rate base for 2000 through the automatic adjustment formula approved in Orders No. P.U. 16 and 36 (1998-99) is inappropriate as the Board has already approved additional capital expenditures of Newfoundland Power subsequent to Orders No. P.U. 16 and 36 (1998-99) and will have approved further additional capital expenditures with the approval of the 2000 Capital Budget. These approvals will, in effect, increase Newfoundland Power's forecast average rate base and invested capital for 2000. It is not appropriate that the Board approve capital expenditures that result in changes to rate base and invested capital without approving the use of the revised forecast rate base and invested capital in calculating the allowed rate of return on rate base.

13. Communication with respect to this Application should be forwarded to the attention of Ian F. Kelly, Q. C. and Peter Alteen, Counsel to Newfoundland Power.

14. Newfoundland Power requests that the Board make an Order:

(a) pursuant to Section 41 of the Act:

(i) approving Newfoundland Power's purchase and construction in 2000 of the improvements and additions to its property as set out in this Application;
(ii) approving Newfoundland Power's lease in 2000 of the improvements and additions to its property as set out in this Application; and
(iii) approving revisions to Newfoundland Power's 1999 capital budget as set out in this Application.

(b) pursuant to Section 78 of the Act:

(i) fixing and determining Newfoundland Power's average rate base for 1998 in the amount of $488,204,000;
(ii) approving Newfoundland Power's revised forecast average rate base for 1999 in the amount of $502,513,000; and
(iii) approving Newfoundland Power's forecast average rate base for 2000 in the amount of $511,088,000.

(c) pursuant to Section 80 of the Act approving revised values for rate base and invested capital for use in the automatic adjustment formula for the calculation of Newfoundland Power's return on rate base for 2000 pursuant to Orders No. P.U. 16 and 36 (1998-99).

DATED at St. John's, Newfoundland, this 29th day of October, 1999.

NEWFOUNDLAND POWER INC.

Ian F. Kelly, Q.C. and Peter Alteen
Counsel to 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 an order pursuant to Sections 41, 78 and 80 of the Act:

(a) (i) approving its 2000 capital budget; (ii) approving leases for 2000 in excess of $5,000 per year; and (iii) approving revisions to its 1999 capital budget; and
(b) (i) fixing and determining its average rate base for 1998 in the amount of $488,204,000; (ii) approving its revised forecast average rate base for 1999 in the amount of $502,513,000; and (iii) approving its forecast average rate base for 2000 in the amount of $511,088,000; and
(c) approving revised values for rate base and invested capital for use in the automatic adjustment formula for the calculation of return on rate base for 2000 pursuant to Orders No. P.U. 16 and 36 (1998-99).

AFFIDAVIT

I, John G. Evans, of St. John's in the Province of Newfoundland, Professional Engineer, make oath and say as follows:

1. That I am Vice-President, Engineering and Energy Supply of Newfoundland Power Inc.

2. To the best of my knowledge, information and belief, all matters, facts and things set out in this Application are true.

SWORN to before me at St. John's
in the Province of Newfoundland
this 29th day of October, 1999,
before me:

Peter Alteen
Barrister

John G. Evans

Newfoundland Power Inc.
2000 Capital Budget
2000 Budget Summary
(000s)

Energy Supply	$	8,878
Substations		3,500
Transmission		1,526
Distribution		16,358
General Property		1,585
Transportation		2,390
Telecommunications		537
Information Systems		4,147
General Expenses Capital		2,850
Total	$	41,771

Newfoundland Power Inc.
2000 Capital Budget

DISTRIBUTION

	(000s)	Details on Page
EXTENSIONS	$2,300	9
METERS	787	10
SERVICES	1,333	11
STREET LIGHTING	876	12
TRANSFORMERS	3,328	13
RECONSTRUCTION	1,481	15
TRUNK FEEDERS		
Replace Defective Insulators	1,390	16
Relocate / Replace Distribution Lines For Third Parties	451	17
Distribution Reliability Initiative	2,234	19
Distribution Rebuilds	1,438	21
Improve Distribution System Protection	200	22
Replace Underground Switch - Water Street, St. John's	90	23
Install Interconnect Switches	100	24
Distribution Feeder Automation	250	25
INTEREST DURING CONSTRUCTION	100	26
TOTAL - DISTRIBUTION	**$16,358**	

Newfoundland Power Inc.
2000 Capital Budget

SUBSTATIONS

	(000s)	Details on Page
REPLACE BUS AND SWITCH INSULATORS	$1,572	27
REPLACE HIGH VOLTAGE BREAKERS	162	28
PURCHASE REPLACEMENT AND SPARE SUBSTATION EQUIPMENT	394	29
REPLACE RADIATORS ON POWER TRANSFORMERS	127	31
INSTALL LOW VOLTAGE BUS REGULATORS	97	32
SUBSTATION SITE IMPROVEMENTS	82	33
SUBSTATION PROTECTION AND MONITORING IMPROVEMENTS	160	34
ST. JOHN'S AREA TRANSMISSION RELAYING IMPROVEMENT PROGRAM	308	35
REBUILD GANDER BAY SUBSTATION	286	37
BUILD NEW SUBSTATION - ST. CATHERINE'S	312	38
TOTAL - SUBSTATION	**$3,500**	

Newfoundland Power Inc.
2000 Capital Budget

TRANSMISSION

	(000s)	Details on Page
REPLACE PIN TYPE AND SUSPENSION INSULATORS	$198	39
POLE, CROSSARM, INSULATOR AND BALL LINK EYEBOLT REPLACEMENT ON TRANSMISSION LINES	878	40
RELOCATION OF TRANSMISSION LINES FOR THIRD PARTIES	285	41
IMPROVE CONDUCTOR SAGS AND CLEARANCES	65	42
SOUTHERN SHORE TRANSMISSION LINE SYSTEM	100	43
TOTAL - TRANSMISSION	$1,526	

Newfoundland Power Inc.
2000 Capital Budget

ENERGY SUPPLY

	(000s)	Details on Page
HYDRO PLANTS – FACILITY REHABILITATION	$1,271	44
THERMAL PLANTS – FACILITY REHABILITATION	246	46
TORS COVE HYDRO PLANT – REPLACE SURGE TANK	700	48
HORSECHOPS HYDRO PLANT – REPLACE MAIN INLET PIVOT VALVE	260	49
HORSECHOPS HYDRO PLANT – REPLACE PENSTOCK	3,000	50
SANDY BROOK HYDRO PLANT – TURBINE UPGRADE	300	51
HYDRO PLANT TRANSFORMER SPILL CONTAINMENT	282	53
GREENHILL GAS TURBINE - REPLACE GOVERNOR	200	54
SALT POND GAS TURBINE – FUEL TANK REPLACEMENT	150	55
SYSTEM CONTROL CENTRE - REPLACE SCADA SYSTEM	2,319	56
MAJOR ELECTRICAL EQUIPMENT REPAIRS	150	58
TOTAL – ENERGY SUPPLY	**$8,878**	

Newfoundland Power Inc.
2000 Capital Budget

GENERAL PROPERTY

	(000s)	Details on Page
TOOLS AND EQUIPMENT	$481	59
ADDITIONS TO REAL PROPERTY	354	61
ALLOWANCE FOR UNFORESEEN ITEMS	750	63
TOTAL – GENERAL PROPERTY	**$1,585**	

Newfoundland Power Inc.
2000 Capital Budget

TELECOMMUNICATIONS

	(000s)	Details on Page
FIBRE OPTIC NETWORKING	$125	64
SUBSTATION TELEPHONE CIRCUIT PROTECTION	262	65
UPGRADE COMMUNICATION EQUIPMENT	150	67
TOTAL – TELECOMMUNICATIONS	**$537**	

Newfoundland Power Inc.
2000 Capital Budget

TRANSPORTATION

	(000s)	Details on Page
PURCHASE OF VEHICLES AND AERIAL DEVICES	$2,390	68
TOTAL – TRANSPORTATION	**$2,390**	

Newfoundland Power Inc.
2000 Capital Budget

INFORMATION SYSTEMS

	(000s)	Details on Page
APPLICATION ENHANCEMENTS	$974	69
APPLICATION ENVIRONMENT	543	70
WORKFLOW TECHNOLOGY	250	71
CORPORATE REPORTING	478	72
INTERNET	79	73
PERSONAL COMPUTERS	936	74
NETWORK INFRASTRUCTURE UPGRADE	201	75
INFRASTRUCTURE ENVIRONMENT	175	76
DISASTER RECOVERY	208	77
SHARED SERVERS INFRASTRUCTURE	303	78
TOTAL – INFORMATION SYSTEMS	**$4,147**	

DISTRIBUTION

EXTENSIONS

Project Cost

$2,300,000

Nature of Project

This project is necessary to accommodate customer growth and consists of both primary and secondary line work associated with the day to day connection of new customers and work required as a result of existing customers increasing their electrical load.

The project cost is calculated on the basis of historical data for specific operating areas. Historical annual expenditures are divided by the number of new customers in each year to derive an average extension cost per customer. Unusually high and low data is excluded from the average. This historical average is multiplied by the forecast number of new customers to determine the budget estimate.

Customer Impact

This project provides electrical service to new customers or increase supply capacity to existing customers.

Project Justification

This project is justified on the basis of customer requirements.

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.

METERS

Project Cost

$787,000

Nature of Project

This project is necessary to accommodate customer growth and to replace deteriorated electrical equipment. The project cost includes purchasing meters for new customers as well as replacement meters for existing customers. The quantity for new customers is based on the customer forecast. The quantity for replacement purposes is determined using historical data for damaged meters and sampling results from previous years. Sampling is done in accordance with regulations under the *Electricity and Gas Inspection Act*.

A sampling survey from late 1998 indicated a failure rate higher than historical averages for residential meters. Based on these results, it is anticipated that the 1999 survey (currently underway) will indicate a high replacement rate for 2000 as well. An additional $150,000 has been budgeted for that purpose.

Included in the 2000 budget is an allotment of approximately $90,000 to begin an initiative to replace commercial customers' 2½ element meters with 3 element meters. The commencement of this initiative is dependent on the outcome of an ongoing CEA study to determine the appropriateness of the continued use of 2½ element meters. The conclusions of the CEA study will not be available until mid-2000. If the study recommends replacement, this project will be escalated throughout 2001 to 2004.

Customer Impact

New meters are required to provide service to new customers and to maintain service to existing customers.

Project Justification

This project is justified on the basis of customer requirements and Industry Canada regulations.

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.

SERVICES

Project Cost

$1,333,000

Nature of Project

This project is necessary to accommodate customer growth and to replace deteriorated electrical equipment. The project is driven by customer requirements and includes all costs associated with the installation of new and replacement services. A service is the low voltage connection from a distribution transformer to a customer's premises.

The project cost is calculated on the basis of historical data. For new services, historical annual expenditures are divided by the number of new customers in each year to derive an average new service cost per customer for specific operating areas. This historical average is multiplied by the forecast number of new customers to determine the budget estimate. For replacement services, historical annual expenditures are divided by the total number of customers in each year to derive an average replacement service cost per customer. This historical average is multiplied by the total number of customers forecast to determine the budget estimate. In both cases, unusually high and low data is excluded from the average cost per customer. Street light customers are excluded for the purpose of this calculation.

Customer Impact

These projects provide and maintain electric service to new and existing customers.

Project Justification

These projects are justified on the basis of customer requirements.

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.

STREET LIGHTING

Project Cost

$876,000

Nature of Project

This project is necessary to accommodate the installation of new and replacement street lights. The project is driven by customer requirements and includes all costs associated with the installation of street lights.

The project cost is calculated on the basis of historical data. For new street lights, historical annual expenditures are divided by the number of new customers in each year to derive an average cost per new customer. This historical average is multiplied by the forecast number of new customers to determine the budget estimate. For replacement street lights, historical expenditures for replacement street lights are divided by the total number of customers to derive an average replacement street light cost per customer. This historical average is multiplied by the total number of customers forecast to determine the budget estimate. In both cases calculations are performed on a specific operating area basis and unusually high and low data is excluded from the average cost per customer.

Customer Impact

These projects provide and maintain street and area lighting service to new and existing customers.

Project Justification

These projects are justified on the basis of customer requirements.

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.

TRANSFORMERS

Project Cost

$3,328,000

Nature of Project

This project is necessary to accommodate customer growth and to replace deteriorated electrical equipment. The project includes the cost of purchasing transformers for customer growth as well as the replacement or refurbishment of units that have deteriorated or failed. The project cost is based on historical data and field surveys.

Transformer requirements can be divided into three categories: (a) new customers (b) replacement units, and (c) other.

(a) Transformers for new customers are based on an historical ratio of transformers per new customer on a specific operating area basis. This ratio is multiplied by the number of forecasted new customers.

(b) Replacement transformers are based on field surveys of rusty or deteriorated transformers. The final number of replacement transformers included in the budget is reduced to reflect the number of transformers that can be repaired.

(c) The other category is for transformers required for conversions and upgrades, plus an allowance for contingency (burnouts and storm damage, etc.). This category is budgeted on the basis of planned projects and historical data.

Customer Impact

These units provide and maintain service to new and existing customers.

Project Justification

This project is justified on the basis of customer requirements.

After experiencing a number of quality problems (rust and a higher than normal number of defects) with its previous supplier of distribution transformers, the Company conducted a competitive evaluation of prospective suppliers on the basis of cost, quality and product delivery time. As a result of this evaluation the Company signed a two-year agreement to purchase new pole-mounted transformers from Asea Brown Boveri (ABB) in January 1995.

TRANSFORMERS (Cont'd)

The Company's experience with ABB has been very satisfactory to date. There have been no significant quality problems (only 7 defects out of approximately 6,300 transformers purchased since 1995), units are delivered within six weeks of the order being placed, and prices remain consistent with industry averages. The original agreement with ABB has since been extended to the end of 1999 and the Company is currently negotiating a further extension until 2004.

Future Commitments

None.

RECONSTRUCTION

Project Cost

$1,481,000

Nature of Project

This project is necessary to replace deteriorated electrical equipment. This project includes expenditures for the unplanned reconstruction of deteriorated or storm damaged distribution lines that cannot be deferred to the next budget period. The Company has over 8,000 km of distribution line and the project cost is estimated on the basis of average historical expenditures related to unplanned repairs to distribution feeders.

Customer Impact

These projects maintain or improve reliability to customers.

Project Justification

These projects are justified on the basis of reliability and the need to replace damaged electrical equipment.

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.

TRUNK FEEDERS
REPLACE DEFECTIVE INSULATORS

Project Cost

$1,390,000

Nature of Project

This project is necessary to replace deteriorated electrical equipment. The Company has been experiencing a high incidence of insulator failure. Insulator failure stems from a phenomenon known as "cement growth" in which cracks develop in the insulator due to the expansion of the cement compound used in insulator construction. These cracks eventually lead to structural failure of the insulator.

In 1997 the Company initiated the Distribution Insulator Replacement Program in response to the high incidence of insulator failure. The Program targeted critical sections of the distribution system, such as hospital feeders and multi-circuit feeders, and is committed to the replacement of all two piece pin type insulators and all CP8080 suspension insulators. The scope of the initial project will be complete in 2000; however, insulator failures on remaining sections of the distribution system will continue to be addressed in future.

The project cost is estimated on the basis of average historical expenditures to replace insulators and an estimate of the number of insulators that will be replaced in 2000.

Customer Impact

This project improves service reliability and safety.

Project Justification

Insulator failure results in power interruptions, poses a safety hazard for personnel and leads to increased operating costs, thus this project is justified on the basis of reliability, safety and operating efficiency.

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.

TRUNK FEEDERS
RELOCATE / REPLACE DISTRIBUTION LINES FOR THIRD PARTIES

Project Cost

$451,000

Nature of Project

This is a new project justification category introduced for the 2000 Capital Budget. The category is an amalgamation of four separate projects contained in previous capital budget submissions and is necessary to accommodate requests from various third parties. This project involves work that is initiated by (1) municipal, provincial and federal governments, (2) by NewTel Communications, (3) by customers or (4) as a result of vehicle accident damage.

This category includes numerous small projects, many of which are less than $50,000, that would not have been specifically identified in previous capital budget submissions. The project cost is based on historic costs and some individual project estimates. For reference purposes, the equivalent expenditures for this category in the 1999 Capital Budget were $683,000.

Customer Impact

No direct customer impact except in the case of some vehicle accidents where electrical service will be restored.

Project Justification

This project is justified as a response to third party requirements.

Government related work is normally associated with road widening and road realignment. Approximately $70,000 of the 2000 budget is associated with government requests.

NewTel Communications work stems from the Joint Use Agreement between Newfoundland Power and NewTel Communications. The budget amount is based on historical expenditures as well as information from NewTel Communications. Approximately $125,000 of the 2000 budget is associated with this type of work.

Vehicle accident work involves the replacement of poles and other distribution equipment damaged as a result of vehicle accidents. Approximately $70,000 of the 2000 budget is associated with this type of work.

TRUNK FEEDERS
RELOCATE / REPLACE DISTRIBUTION LINES FOR THIRD PARTIES (Cont'd)

Work associated with customer requests to have poles and anchors relocated or removed from private property is justified on the basis of customer requirements. Approximately $185,000 of the 2000 budget is associated with this type of work.

A portion of the cost to relocate or replace distribution lines for government, NewTel Communications, customers or due to vehicle damage will be recovered from the various third parties. All third party contributions associated with this project have been included in the $1.5 million contribution in aid of construction amount referred to in the Application.

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.

TRUNK FEEDERS
DISTRIBUTION RELIABILITY INITIATIVE

Project Cost

$2,234,000

Nature of Project

This project is necessary to replace deteriorated electrical equipment. This project involves the rebuilding or replacement of distribution circuits to achieve reliability and customer service improvements.

The Company monitors the reliability statistics for its nearly 300 distribution feeders. This project will focus on 7 feeders where customers experience power interruptions that are above the Company average in duration and/or frequency.

The project cost is based on engineering estimates of the cost to replace the deteriorated sections of specific distribution circuits.

Customer Impact

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

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.

TRUNK FEEDERS
DISTRIBUTION RELIABILITY INITIATIVE (Cont'd)

The following table indicates the estimated cost, the number of customers affected, and the average interruption statistics (as well as the Company average for the 1996 - 1999 period) for each of the seven distribution feeders included in the project.

Feeder	Estimated Cost (000s)	Number of Customers	SAIFI* interruptions/year	SAIDI** hours / year
Blaketown (BLK-02)	$1,122	1,563	9.97	8.17
Old Perlican (OPL-02)	100	876	3.10	11.54
Bay L'Argent (BLA-01)	125	1,246	4.68	15.20
Laurentian (LAU-02)	80	816	6.86	29.48
Robinsons (ROB-01)	480	1,159	2.72	10.41
Doyles (DOY-01)	277	1,084	2.98	6.06
Abraham's Cove (ABC-02)	50	912	3.44	7.08
Company Average			4.48	5.43

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.

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.

TRUNK FEEDERS
DISTRIBUTION REBUILDS

Project Cost

$1,438,000

Nature of Project

This is a new project justification category introduced for the 2000 Capital Budget. The project is necessary to replace deteriorated electrical equipment and includes numerous small projects, many of which are less than $50,000, that would not have been specifically identified in previous capital budget submissions.

This project involves the planned rebuilding or replacement of deteriorated distribution circuits that have been previously identified through ongoing line inspections. The inspections are either done visually or with the aid of thermoscan equipment.

The Company has over 8,000 km of distribution line and the project cost is estimated on the basis of average historical expenditures and individual project estimates. For reference purposes, the equivalent expenditures for this category in the 1999 Capital Budget were approximately $1,600,000.

Customer Impact

This project will improve the safety and reliability of electrical service to customers.

Project Justification

This project is justified on the basis of reliability improvements and on the need to replace deteriorated electrical equipment. The Company uses this budget allocation to proactively correct the deficiencies identified before actual power outages occur.

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.

TRUNK FEEDERS
IMPROVE DISTRIBUTION SYSTEM PROTECTION

Project Cost

$200,000

Nature of Project

This is a new project justification category introduced for the 2000 Capital Budget. This category includes numerous small projects, many of which are less than $50,000, that would not have been specifically identified in previous capital budget submissions. The project is necessary to achieve increased reliability.

This project involves the installation of lightning arrestors and improved fuse coordination. As a result of an analysis completed by the Company in 1994, a program to install lightning arrestors on transformers has been ongoing for the past five years. For 2000, the project includes the installation of lightning arrestors on distribution transformers in the St. John's, Grand Falls and Stephenville areas, in addition to improved fusing in the St. John's and Avalon areas.

The project cost is calculated on the basis of historical costs and individual project estimates. For reference purposes, the equivalent expenditures for this category in the 1999 Capital Budget were approximately $120,000.

Customer Impact

This project will improve service reliability, reduce outage time, and reduce the number of customers affected by certain distribution problems.

Project Justification

This project will improve distribution system protection so as to increase system reliability and reduced damage costs associated with lightning strikes.

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.

TRUNK FEEDERS
REPLACE UNDERGROUND SWITCH - WATER STREET, ST. JOHN'S

Project Cost

$90,000

Nature of Project

This project is necessary to replace deteriorated electrical equipment. This project involves the replacement of a high voltage switch located in the Water Street underground distribution system. This is a continuation of an ongoing program started in 1998 to replace or eliminate thirteen underground high voltage switches located on Water Street. To date, three of these switches have either been replaced or eliminated.

Customer Impact

This project will improve the reliability of service to approximately 400 customers in the Water Street area.

Project Justification

The high voltage switch is 30 years old and approaching the end of its useful life. The manufacturer no longer supplies replacement parts for this switch.

There are safety issues associated with certain operations of the existing switch. The switch relies on manual operation and internal arcing and deterioration of contacts could threaten employee safety. New switches have technology which eliminates this concern.

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. However, after 2000, there will still be nine of these switches on Water Street that will have to be either replaced or eliminated. The Company plans to address these remaining switches within the next few years.

TRUNK FEEDERS
INSTALL INTERCONNECT SWITCHES – ST. JOHN'S

Project Cost

$100,000

Nature of Project

This project is necessary to achieve increased operating efficiency. This project involves the installation of switches between existing distribution feeders to allow these feeders to be interconnected.

Customer Impact

This project will improve the reliability of electrical service.

Project Justification

Growth in the number of services on feeders in the St. John's Region has increased the number of customers likely to be impacted by a single power interruption. The addition of new feeder interconnect switches will improve the Company's ability to transfer customers from one distribution feeder to another. This will limit the number of customers impacted by a single power interruption and provide additional flexibility when restoring service in the event of a power interruption.

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.

TRUNK FEEDERS
DISTRIBUTION FEEDER AUTOMATION

Project Cost

$250,000

Nature of Project

This project is necessary to achieve increased operating efficiency. This project involves installing equipment on several distribution feeders in the Burin and St. John's areas to allow for the automated isolation of sections of these feeders.

Customer Impact

This project will increase the reliability of the distribution system and reduce the time required for service restoration.

Project Justification

The implementation of distribution feeder automation will facilitate the quick restoration of service to the customers on sections of feeders that are not directly affected by a particular fault. Customers who are on the unfaulted sections of a feeder will have their electrical service restored within seconds. Customers who are on the faulted sections will also have a reduced outage duration as the automated process to identify faults will reduce the time required to patrol and repair isolated sections of the line. Operating efficiencies will be obtained through reduced field work associated with line patrols and manual switching procedures, especially for long radial lines. This flexibility will result from the enhanced control features to be provided by the Company's new SCADA system.

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.

INTEREST DURING CONSTRUCTION

Project Cost

$100,000

Nature of Project

This is an estimate of the interest during construction that will be charged on distribution work orders with an estimated expenditure of less than $50,000 and a construction period in excess of three months. This calculation is based on an estimated monthly average of total distribution work in progress of $1 million. The interest rate which is applied each month is dependent on the source of funds to finance the capital expenditure and is calculated in accordance with Order No. P.U. 37 (1981).

Customer Impact

No direct customer impact.

Project Justification

These costs are justified on the same basis as the distribution work orders to which they are charged.

Future Commitments

None.

SUBSTATIONS

REPLACE BUS AND SWITCH INSULATORS

Project Cost

$1,572,000

Nature of Project

This project is necessary to replace deteriorated electrical equipment. This project involves replacement of all cap and pin insulators, and transmission and distribution suspension insulators, in substations. These insulators are prone to failure due to manufacturing defects. Initiated in 1997, this program covers all substations and will be completed in 2000.

The project cost is based on detailed estimates to replace insulators at individual substations. The 2000 budget includes insulator replacements at 33 substations.

Customer Impact

These projects contribute to improvements in reliability and continuity of customer service.

Project Justification

These projects are justified on the basis of replacement of defective equipment, reliability and safety.

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 HIGH VOLTAGE BREAKERS

Project Cost

$162,000

Nature of Project

This project is necessary to replace deteriorated electrical equipment. This project involves the replacement of 1950s - 1960s vintage high voltage breakers.

The project cost is based on detailed estimates to replace high voltage breakers at two substations.

Customer Impact

This project will improve the reliability of the electrical supply.

Project Justification

This project is justified as the age of the equipment makes it prone to failure. In addition, replacement parts are expensive, and are either difficult or impossible to obtain.

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.

PURCHASE REPLACEMENT AND SPARE SUBSTATION EQUIPMENT

Project Cost

$394,000

Nature of Project

This is a new project justification category introduced for the 2000 Capital Budget. The project is necessary to replace deteriorated electrical equipment.

This project involves the purchase of substation equipment including high voltage switches, reclosers, current transformers, potential transformers, circuit breakers, etc. This equipment will replace faulty and deteriorated substation equipment.

This project also provides for the replacement of battery banks and chargers. The Company has over 100 battery banks and chargers in substations and hydro stations. Each year a number of these require replacement. These units have reached the end of their useful life due to age or loss of capacity. Loss of capacity is confirmed through a battery load test.

The project cost is based on the historical purchase cost of this equipment. For reference purposes, the equivalent expenditures for this category in the 1999 Capital Budget were approximately $130,000. The increase in 2000 is mainly due to a depletion of the inventory of spare breakers and switches in 1999 due to equipment failure. The 2000 expenditure will restore spares to historic levels.

Customer Impact

This project will help to maintain the reliability and security of the power system.

Project Justification

The cost of this project is justified based on the need to replace damaged or deteriorated equipment to maintain reliable service. The quantities budgeted are based on equipment inspections and historic replacement requirements as well as the current inventory of spare equipment.

PURCHASE REPLACEMENT AND SPARE SUBSTATION EQUIPMENT (Cont'd)

The Company has in excess of 400 circuit breakers, 200 reclosers, 100 battery banks and chargers, hundreds of potential and current transformers and thousands of switches in service. Each year a percentage of this equipment can be expected to fail. Due to extended delivery times, it is important to have spare equipment available so that service can be restored in a timely manner.

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 RADIATORS ON POWER TRANSFORMERS

Project Cost

$127,000

Nature of Project

This project is necessary to replace deteriorated electrical equipment. This project will replace deteriorated radiators on power transformers.

The project cost is based on detailed estimates to replace deteriorated radiators on two power transformers at specific substations.

Customer Impact

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

Project Justification

This project is justified on the basis of safety, the replacement of deteriorated equipment, and compliance with environmental regulations.

The Company has approximately 200 power transformers in service. The majority of these transformers have radiators. Since each of these radiators is filled with oil, failure to replace deteriorated units may lead to oil spills. Additionally, radiator failure may cause transformer overheating which could lead to catastrophic transformer failure.

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.

INSTALL LOW VOLTAGE BUS REGULATORS

Project Cost

$97,000

Nature of Project

This project is necessary to achieve appropriate voltage standards and involves the installation of low voltage bus regulators at the Gillams and Frenchman's Cove Substations.

The project cost is based on detailed estimates to install voltage regulators at the specified substations.

Customer Impact

This project will improve the voltage regulation of the electricity supply to customers in the Gillams and Frenchman's Cove areas.

Project Justification

This project is justified on the basis of providing appropriate voltage levels to the customers in these areas.

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.

SUBSTATION SITE IMPROVEMENTS

Project Cost

$82,000

Nature of Project

This is a new project justification category introduced for the 2000 Capital Budget. This category includes numerous small projects, many of which are less than $50,000, that would not have been specifically identified in previous capital budget submissions. The project is necessary to replace deteriorated equipment.

This project will address deficiencies at several substations. Included in the 2000 budget are fence replacement at two substations, fence repair at another substation and foundation repair at two other substations.

The project cost is based on detailed estimates for individual projects at specific substations. For reference purposes, the equivalent expenditures for this category in the 1999 Capital Budget would have been approximately $180,000.

Customer Impact

This project will help maintain the reliability and security of the power system and the safety of the general public.

Project Justification

This project is justified on the basis of correcting deteriorated site conditions. In some cases, these conditions may threaten either system reliability or public safety.

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.

SUBSTATION PROTECTION AND MONITORING IMPROVEMENTS

Project Cost

$160,000

Nature of Project

This is a new project justification category introduced for the 2000 Capital Budget. This category includes numerous small projects, many of which are less than $50,000, that would not have been specifically identified in previous capital budget submissions. The project involves the replacement of deteriorated equipment as well as the addition of equipment necessary to achieve increased operating efficiency and reliability.

This project will make improvements to the protection and monitoring systems utilized for the safe and reliable operation of substations. For 2000, this project includes items such as the replacement of volt meters, the installation of reclosing relays on two transmission lines, the upgrading of airbreak switches, the replacement of fuse disconnects on a power transformer, and grounding improvements at several substations.

The project cost is based on detailed estimates for individual projects at specific substations. For reference purposes, the equivalent expenditures for this category in the 1999 Capital Budget were approximately $340,000.

Customer Impact

This project will help to maintain the reliability and security of the power system.

Project Justification

This project is justified on the basis of improved reliability and security of supply. Protection improvements will minimize outage times while monitoring improvements will allow potential problems to be identified before they lead to prolonged power interruptions.

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.

ST. JOHN'S AREA TRANSMISSION RELAYING IMPROVEMENT PROGRAM

Project Cost

$308,000

Nature of Project

This project is necessary to achieve increased reliability. This project is the continuation of a three-year project. An amount of $373,000 was included in the Company's approved 1999 Capital Budget. The project involves establishing and/or upgrading pilot wire relaying, breaker failure and backup protection on identified 66 kV transmission lines and buses in the St. John's area over a three-year period (1999-2001).

The project cost is based on a detailed engineering estimate for this project.

Customer Impact

This project will assist in maintaining the reliability and security of the power system.

Project Justification

Newfoundland Power's existing protection scheme for the 66 kV transmission system in the St. John's area cannot ensure adequate clearing times to prevent some faults on this system from causing stability problems at the Holyrood generating facility. The resulting system-wide disturbances can cause unnecessary customer outages as well as possible damage to utility equipment.

Newfoundland Power and Newfoundland and Labrador Hydro have jointly developed recommendations to reduce or eliminate the system - wide disturbances related to problems on Newfoundland Power's transmission system in the St. John's area. As a result, Newfoundland Power reviewed various alternatives to improve its protection scheme for specific transmission lines in this area. The new protection scheme consists of pilot wire relaying using fibre optic cables as a communication medium. This protection scheme will ensure that multiphase faults on these 66 kV lines are cleared by the primary protection scheme within 10 cycles or by the backup protection scheme within 30 cycles.

ST. JOHN'S AREA TRANSMISSION RELAYING IMPROVEMENT PROGRAM (Cont'd)

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

The work undertaken each year will provide immediate benefits to the power system and is not dependent on future work. However, a further expenditure of $511,000 is planned for 2001. To provide full benefits to the system, the entire project must be completed.

REBUILD GANDER BAY SUBSTATION

Project Cost

$286,000

Nature of Project

This project is necessary to replace deteriorated electrical equipment. This project will rebuild the existing Gander Bay Substation. The existing substation is of wooden construction and has deteriorated to the point where replacement is necessary.

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

Customer Impact

This project will maintain the reliability and continuity of customer service in the Gander Bay Area. It will also eliminate potential employee safety hazards associated with the deteriorated state of the existing substation.

Project Justification

This project is justified based on the need to replace deteriorated equipment. The rebuild will ensure reliable service and will address existing safety concerns. Investigations of alternate means to meet the load requirements in the Gander Bay area showed that rebuilding the existing substation was the least cost alternative.

The alternatives considered included supplying this load by establishing a new substation in combination with reconstructing the existing substation so that sections of existing distribution circuit could be retired, and supplying the entire load entirely from a new substation.

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.

Further Commitments

None.

BUILD NEW SUBSTATION - ST. CATHERINE'S

Project Cost

$312,000

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 St. Catherine's.

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

Customer Impact

This project will maintain the reliability and continuity of electrical service. It will also eliminate voltage problems in the St. Catherine's area.

Project Justification

This project is justified based on its being the least cost alternative to improve reliability in the St. Catherine's area. The existing distribution feeders in this area are deteriorated, have experienced very poor reliability and are in need of replacement. The construction of a new substation at St. Catherine's to supply part of the existing Blaketown and Riverhead Substation loads is a lower cost alternative to rebuilding the distribution feeders. The new substation will allow approximately 18 kilometers of distribution circuit to be retired.

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.

Further Commitments

None.

TRANSMISSION

REPLACE PIN TYPE AND SUSPENSION INSULATORS

Project Cost

$198,000

Nature of Project

This project is necessary to replace deteriorated electrical equipment. This is a continuation of the pin type and suspension insulator programs which were initiated in 1989 and 1994, respectively. Expenditures on these transmission insulator replacement programs will total approximately $6.7 million by the end of 1999. The project involves the replacement of pin type and suspension transmission insulator strings which have tested defective or are prone to failure due to manufacturing defects.

This project category includes numerous small projects less than $50,000 that would not have been specifically identified in previous capital budget submissions. The project cost is based on a combination of historical costs and individual project estimates. The 2000 budget makes provision for insulator replacement on ten transmission lines.

Customer Impact

These projects will benefit customers through improvements to reliability and security of the power system.

Project Justification

These projects are necessary to prevent service interruptions.

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.

POLE, CROSSARM, INSULATOR AND BALL LINK EYEBOLT REPLACEMENT ON TRANSMISSION LINES

Project Cost

$878,000

Nature of Project

This is a new project justification category introduced for the 2000 Capital Budget. The project is necessary to replace deteriorated electrical equipment and involves the replacement of poles, crossarms, insulators and ball link eyebolts due to deficiencies identified during annual inspections.

This project category includes numerous small projects less than $50,000 that would not have been specifically identified in previous capital budget submissions. The project cost is based on a combination of historical costs and individual project estimates. The 2000 budget will address deficiencies on approximately 40 transmission lines. For reference purposes, the equivalent expenditures for this category in the 1999 Capital Budget were approximately $902,000.

Customer Impact

This project will improve the reliability and security of the power system.

Project Justification

Replacement of this transmission line equipment is necessary to prevent service interruptions.

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.

RELOCATION OF TRANSMISSION LINES FOR THIRD PARTIES

Project Cost

$285,000

Nature of Project

This is a new project justification category introduced for the 2000 Capital Budget. The project is necessary to accommodate requests from third parties for the relocation of transmission lines.

For 2000, relocations are required on four transmission lines. All of these relocations are being done at the request of the Department of Works, Services and Transportation in order to facilitate new road construction.

The project cost is based individual project estimates. For reference purposes, the equivalent expenditures for this category in the 1999 Capital Budget would have been approximately $256,000.

Customer Impact

There is no direct customer impact related to this project.

Project Justification

This project responds to specific requests from third parties to relocate sections of transmission lines.

A portion of the cost to relocate lines for the government will be recovered. All government contributions associated with this project have been included in the $1.5 million contribution in aid of construction amount referred to in the Application.

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.

IMPROVE CONDUCTOR SAGS AND CLEARANCES

Project Cost

$65,000

Nature of Project

This is a new project justification category introduced for the 2000 Capital Budget. The project is necessary to achieve appropriate clearance standards and will address conductor sag problems that have been identified through transmission line inspections. In 2000, conductor sag and clearance problems will be corrected on three transmission lines.

The project cost is based on a combination of historical costs and individual project estimates.

Customer Impact

This project will help maintain the reliability and security of the power system.

Project Justification

This project is justified on the basis of correcting identified clearance and conductor sag problems. In some circumstances, these conditions can threaten system reliability.

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.

SOUTHERN SHORE TRANSMISSION LINE SYSTEM

Project Cost

$100,000

Nature of Project

This project is necessary to replace deteriorated equipment. The project involves the non-destructive testing of wood structures and conductor on transmission lines on the Southern Shore, as well as the replacement or rebuilding of sections found to be in a deteriorated condition.

Customer Impact

This project will improve the reliability and security of the power system.

Project Justification

The transmission lines in this area were constructed in the early 1950s. The condition of the transmission lines need to be evaluated to reduce the likelihood of system outages and reduced reliability.

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

While there are no future commitments, the results of the testing may require expenditures in future years.

ENERGY SUPPLY

HYDRO PLANTS
FACILITY REHABILITATION

Project Cost

$1,271,000

Nature of Project

This is a new project justification category introduced for the 2000 Capital Budget. The project is primarily required to replace deteriorated equipment.

The project involves the replacement or rehabilitation of deteriorated hydro plant components that have been identified through routine inspections. It also includes expenditures necessary to improve the efficiency and reliability of the hydro plants or to maintain environmental compliance.

Typically, this category includes individual projects with a value less than $100,000 including numerous small projects less than $50,000 that would not have been specifically identified in previous capital budget submissions. For reference purposes, the equivalent expenditures for this category in the 1999 Capital Budget were approximately $1,336,000.

The project involves:

a) Replacement / rehabilitation work at eleven hydroelectric plants. The work includes the replacement or rehabilitation of various spillways, rip rap on a number of dams, a forebay canal, a power house roof, trash racks, stop log structures, an overhead crane, utility sheds, and cooling coils.

b) Work related to plant efficiency, reliability or the environment includes the addition of a water management systems, voltage regulators, fish habitat, and sanitary holding tanks at various hydroelectric plants.

The following table lists the project costs for 2000:

Category	Cost (000s)
Replacements / Rehabilitations	$997
Additions	274
Total	$1,271

HYDRO PLANTS
FACILITY REHABILITATION (Cont'd)

Customer Impact

These facilities provide energy to the Island Interconnected Electrical System and minimize rates by reducing the requirement for more expensive thermal generation.

Project Justification

Projects such as these ensure the continued operation of Newfoundland Power's existing 23 hydroelectric generation facilities in a safe, reliable and environmentally compliant manner. The alternative to maintaining these facilities would be to retire them. These facilities produce a combined average annual production of 451 GWh. Replacing only the energy produced by these facilities by increasing production at the Holyrood generation facility would require approximately 745,000 barrels of fuel annually. At a cost of $18 per barrel, this would translate into a fuel saving of more than $13,000,000 annually. This is the energy replacement savings only and does not consider other items such as the capacity, system stability, and reliability that these facilities add to the system.

All significant expenditures on hydroelectric plants such as the replacement of penstocks, surge tanks, runners, or forebays are justified individually on the basis of maintaining access to hydroelectric generation at a cost that is lower than the cost of other available sources.

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.

THERMAL PLANTS
FACILITY REHABILITATION

Project Cost

$246,000

Nature of Project

This is a new project justification category introduced for the 2000 Capital Budget. The project is primarily required to replace deteriorated equipment.

This project involves the replacement or rehabilitation of deteriorated thermal plant components that have been identified through routine inspections. It also includes expenditures necessary to improve the safety and reliability of the thermal plants or to enhance environmental compliance.

Typically, this category includes individual projects with a value less than $100,000 including numerous small projects less than $50,000 that would not have been specifically identified in previous capital budget submissions. For reference purposes, the equivalent expenditures for this category in the 1999 Capital Budget were approximately $440,000.

The projects involves:

a) Replacement / rehabilitation includes a unit enclosure, unit controls, and a fuel pump.

b) Safety, reliability or the environment include the addition of remote starting capability, and automatic fuel shut-offs.

The following table lists the project costs for 2000:

Facility	Cost (000s)
Port aux Basques Internal Combustion	$54
Portable Gas Turbine	75
Greenhill Gas Turbine	117
Total	$246

THERMAL PLANTS
FACILITY REHABILITATION (Cont'd)

Customer Impact

These facilities benefit customers by providing backup power sources during system problems.

Project Justification

These projects ensure the continued operation of Newfoundland Power's existing thermal generation facilities in a safe, reliable and environmentally compliant manner. These plants are used to provide emergency power during system problems, to facilitate repair to radial systems and to support the system peak when one or more normal generation facilities are unavailable.

An alternative to maintaining these facilities would be to retire them. These facilities currently provide approximately 50 MW of backup generation capacity. Replacement of this capacity would cost in excess of $1,000,000 per MW utilizing existing sites. Therefore the replacement cost of these facilities would be approximately $50,000,000.

The economic viability of these plants is reviewed on an ongoing basis and facilities are retired if they are no longer economic. For example, over the last few years we have retired several small diesel plants as well as the 30 MW St. John's Steam Plant.

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.

TORS COVE HYDRO PLANT
REPLACE SURGE TANK

Project Cost

$700,000

Nature of Project

This project is necessary to replace deteriorated equipment. An inspection was performed on the 1941 vintage Tors Cove surge tank in 1998 as part of a review of the condition of all surge tanks. The report recommended replacement of the structure due to heavy corrosion and deterioration of structural steel members.

Customer Impact

This project will ensure the continued safe operation of the hydro plant. If the project is not undertaken the risk to property, employee safety, and the environment is greater due to the possibility of failure. Tank failure would cause a temporary shutdown of the facility with the energy being replaced by more expensive thermal generation.

Project Justification

This project is being carried out for safety reasons on the recommendation of an independent engineering consultant following a structural inspection. This project will ensure the safe operation of the plant and prevent the possibility of a temporary shutdown.

The alternative to maintaining this plant would be to retire it. This facility has an average annual production of approximately 26 GWh. Replacing only the energy produced by this facility by increasing production at the Holyrood generation facility would require approximately 43,000 barrels of fuel annually. At a cost of $18 per barrel, this would translate into a fuel saving of more than $770,000 annually. This is the energy replacement savings only and does not consider other items such as the capacity, system stability, and reliability that this facility adds to the system.

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.

HORSECHOPS HYDRO PLANT
REPLACE MAIN INLET PIVOT VALVE

Project Cost

$260,000

Nature of Project

This project is necessary to replace deteriorated equipment and involves the replacement of a pivot valve at the Horsechops Hydro Plant.

Customer Impact

This project will ensure the lowest possible power rate to customers by maintaining existing hydro generation and avoiding more expensive thermal generation.

Project Justification

The existing valve is 46 years old, has deteriorated with wear, and is unable to properly de-water the turbine. This is a critical function in the operation and maintenance of a hydro turbine.

The alternative to maintaining this plant would be to retire it. This facility has an average annual production of approximately 50 GWh. Replacing only the energy produced by this facility by increasing production at the Holyrood generation facility would require approximately 82,000 barrels of fuel annually. At a cost of $18 per barrel, this translates into a fuel saving of more than $1,500,000 annually. This is the energy replacement savings only and does not consider other items such as the capacity, system stability, and reliability that this facility adds to the system.

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.

HORSECHOPS HYDRO PLANT
REPLACE PENSTOCK

Project Cost

$3,000,000

Nature of Project

This project is necessary to replace deteriorated equipment and involves the replacement of the penstock at the Horsechops Hydro Plant.

Customer Impact

This project will ensure the lowest possible power rate to customers by maintaining existing hydro generation and avoiding more expensive thermal generation.

Project Justification

The 46 year old penstock at Horsechops has been in poor condition for a number of years but has recently been deteriorating more rapidly. Partial rehabilitation was carried out in 1997, but with limited success. Replacement is now required in order to continue the operation of the plant.

The alternative to maintaining this plant would be to retire it. This facility has an average annual production of approximately 50 GWh. Replacing only the energy produced by this facility by increasing production at the Holyrood generation facility would require approximately 82,000 barrels of fuel annually. At a cost of $18 per barrel, this would translate into a fuel saving of more than $1,500,000 annually. This is the energy replacement savings only and does not consider other items such as the capacity, system stability, and reliability that this facility adds to the system.

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.

SANDY BROOK HYDRO PLANT
TURBINE UPGRADE

Project Cost

$300,000

Nature of Project

This project is necessary to replace deteriorated equipment. This project involves the replacement of the turbine runner and wicket gates, transformer upgrading and generator refurbishments.

The engineering design work and procurement of the turbine runner and associated components will be completed in 2000. Installation of the equipment will be completed in 2001.

Customer Impact

This project will ensure the lowest possible power rate to customers by maintaining existing hydro generation and avoiding the cost of more expensive thermal generation.

Project Justification

The existing turbine runner and wicket gates, which were installed in 1963, are deteriorated. The turbine efficiency has been measured at 78%.

The alternative to maintaining this plant would be to retire it. This facility has an average annual production of approximately 29 GWh. Replacing only the energy produced by this facility by increasing production at the Holyrood generation facility would require approximately 47,000 barrels of fuel annually. At a cost of $18 per barrel, this would translate into a fuel saving of more than $850,000 annually. This is the energy replacement savings only and does not consider other items such as the capacity, system stability, and reliability that this facility adds to the system.

The replacement of the turbine runner and wicket gates with a modern design will increase turbine efficiency to 87% and will increase the plant capacity by approximately 35%. This will enable the plant to produce approximately an additional 3.3 GWh per year, which would defer an additional 5,400 barrels of fuel at the Holyrood generation facility. At a cost of $18 per barrel, this would translate into an additional fuel saving of more than $97,000 annually.

SANDY BROOK HYDRO PLANT
TURBINE UPGRADE (Cont'd)

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 Commitment

The 2000 budget allocation is for engineering design work and procurement of the turbine runner and associated components. The actual installation of this equipment will be completed in 2001. The anticipated cost of this installation in 2001 is $560,000. The total cost of this project over the two years is $860,000.

HYDRO PLANT TRANSFORMER SPILL CONTAINMENT

Project Cost

$282,000

Nature of Project

This project is necessary to achieve appropriate environmental standards and involves installing spill containment systems around oil filled power transformers associated with hydro generation facilities. This is a two stage project which commenced in 1999. Spill containment systems were installed for approximately half of the transformers in 1999. The remaining transformers will be done in 2000.

Customer Impact

This project will reduce the risk of oil spills at power plants which could result in environmental damage and expensive cleanup costs.

Project Justification

All hydro generation facilities have oil filled power transformers which step up the voltage to transmission levels. Each of these transformers may contain anywhere from four to ten thousand litres of oil, depending on the transformer's size. The rupture of a transformer could result in up to ten thousand litres of oil being spilled into water bodies adjacent to the site. The environmental impact and cleanup costs of such a spill would be significant and could be in excess of one million dollars. Spill containment will reduce the risk of such an occurrence.

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.

GREENHILL GAS TURBINE
REPLACE GOVERNOR

Project Cost

$200,000

Nature of Project

This project is necessary to replace deteriorated equipment and involves replacing the governor on the Greenhill Gas Turbine.

Customer Impact

This generator is normally utilized during emergency situations. Failure of the governor could lead to the unavailability of this unit for such emergencies.

Project Justification

This governor is obsolete and there is minimal support available from the manufacturer and spare parts are not readily available. If the governor is not replaced, the viability of the plant's operational status is threatened.

An alternative to maintaining this facility would be to retire it. This facility currently provides approximately 25 MW of backup generation capacity. Replacement of this capacity would cost in excess of $1,000,000 per MW utilizing the existing site. Therefore the replacement cost of this facility would be approximately $25,000,000.

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.

SALT POND GAS TURBINE
FUEL TANK REPLACEMENT

Project Cost

$150,000

Nature of Project

This project is necessary to replace deteriorated equipment and involves the replacement of the two fuel tanks that store No. 2 diesel fuel for use in the Salt Pond gas turbine.

Customer Impact

This project will reduce the risk of oil spills which could result in environmental damage and expensive cleanup costs.

Project Justification

The existing tanks are 32 years old and require replacement due to deterioration. This project will reduce the risk of fuel spills and avoid resulting cleanup costs. The existing tanks hold approximately 110,000 litres of fuel each, hence environmental impacts and cleanup costs as a result of fuel leakage would be significant.

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.

SYSTEM CONTROL CENTRE
REPLACE SCADA SYSTEM

Project Cost:

$2,319,000

Nature of Project:

This project is the continuation of a two-year project which commenced in 1999 to replace the deteriorated and obsolete SCADA system. The 2000 expenditures for this project have increased by approximately one million dollars over what was projected in the 1999 budget submission. Approximately 25% of this increase is associated with changes in currency exchange, including the deferral of the acquisition of remote terminal units (RTU) from 1999 to 2000; another 25% is related to the advancement to 2000 of RTU additions that were originally planned for 2001; and the remaining 50% relates to system enhancements.

The acquisition of RTUs was advanced partly to implement the additional features such as individual feeder control and partly to reduce operational problems associated with current RTUs. A total of sixty RTUs will now be replaced in 2000. The system improvements include individual feeder control which will provide additional flexibility in the management of under frequency load shed schemes and the implementation of an improved device numbering scheme in the field which will eliminate possible safety problems that might arise if the existing device numbering scheme is used in conjunction with the new SCADA system.

The existing SCADA system will be completely replaced and housed, with associated telecommunications facilities and an interruptible power supply, in a new System Control Centre building. The new SCADA will be a modern system capable of providing enhancements such as the monitoring and control of individual distribution lines.

Customer Impact

This project will improve system reliability by reducing the frequency and duration of power interruptions, and will enhance worker and public safety.

SYSTEM CONTROL CENTRE
REPLACE SCADA SYSTEM (Cont'd)

Project Justification

The current SCADA system was designed in the 1970s and was installed at Newfoundland Power's System Control Centre in the early 1980s. The existing SCADA system has undergone two major system upgrades in its 15 year life. Maintenance of the existing computer hardware has become increasingly difficult with individual components becoming obsolete. The RTUs associated with this system are no longer manufactured.

The existing SCADA system is limited in functionality. It is not possible to add any further control points to the system as it has reached its capacity. The current system restricts Newfoundland Power from monitoring and controlling individual distribution lines.

It is Newfoundland Power's intent to make further advances in distribution automation so as to increase the efficient use of personnel and other resources, and to enhance system reliability. This system will enable the Company to remotely monitor and control its entire electrical system, both transmission and distribution lines, from a centralized control centre.

The new system will permit the range of control to be extended from the substation to the actual feeder. With the expenditures planned for 2000, the SCADA operator will be able to operate switches located on the individual feeders, thereby reducing personnel resources required at remote sites.

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.

Total Project Cost (000s):

	1999	2000	Total
Scada System	$1,851	$2,319	$4,170
Building	855	-	855
Total	**$2,706**	**$2,319**	**$5,025**

MAJOR ELECTRICAL EQUIPMENT REPAIRS

Project Cost

$150,000

Nature of Project

This project is necessary to replace deteriorated electrical equipment. This project includes the unanticipated cost of major equipment replacement or rehabilitation. Major equipment includes transformers and generators. The project cost is based on an assessment of historical expenditures. For reference purposes, the same amount was included for this category in the 1999 Capital Budget.

Customer Impact

The project provides the ability to replace failed equipment to allow for continuity of service.

Project Justification

Past experience has indicated that unforeseen equipment failures will be experienced. Projects covered by this budget item in the past include generator rewinding and power transformer rehabilitation.

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.

GENERAL PROPERTY

TOOLS AND EQUIPMENT

Project Cost

$481,000

Nature of Project

This is a new project justification category introduced for the 2000 Capital Budget. The project is necessary to replace deteriorated equipment and to maintain operating efficiency.

This project involves the addition or replacement of tools and equipment utilized by line and support staff in the day-to-day operations of the company as well as the replacement or addition of office furniture and equipment.

This category includes numerous small projects many of which are less than $50,000 that would not have been specifically identified in previous capital budget submissions. The project cost is based on a combination of historical costs and individual project estimates. For reference purposes, the equivalent expenditures for this category in the 1999 Capital Budget were approximately $1,042,000 of which $450,000 was associated with mail room equipment and the acquisition of transformer shop equipment.

The project involves:

a) Line Tools and Equipment include various tools and equipment used by line staff, and oil holding tanks; and

b) Office Furniture and Equipment include the replacement of broken or deteriorated furniture and office equipment, the purchase of additional filing and storage equipment, and the replacement of a cash register.

The following table lists the project costs for 2000:

Category	Cost (000s)
Line Tools and Equipment	$358
Office Furniture and Equipment	123
Total	$481

Customer Impact

The addition or replacement of these tools and equipment help to ensure the reliability and security of the power system.

TOOLS AND EQUIPMENT (Cont'd)

Project Justification

This equipment enables staff to perform work in a safe, effective and efficient manner.

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.

ADDITIONS TO REAL PROPERTY

Project Cost

$354,000

Nature of Project

This is a new project justification category introduced for the 2000 Capital Budget. The project is necessary to replace deteriorated equipment and to maintain operating efficiency. It also involves the addition to, or renovation of, company property.

This category includes numerous small projects many of which are less than $50,000 that would not have been specifically identified in previous capital budget submissions. The project cost is based on a combination of historical costs and individual project estimates. For reference purposes, the equivalent expenditures for this category in the 1999 Capital Budget were approximately $1,193,000 of which $900,000 was associated with the Duffy Place Computer Facility and the construction of the new System Control Centre.

The project involves:

a) Additions include a backup computer room within the existing Duffy Place facility, a transformer ramp, and air conditioning for a UPS room.

b) Renovations involve four buildings and include the replacement of a roof, the replacement of siding and general renovations, and security systems.

The following table lists the project costs for 2000:

Category	Cost (000s)
Additions	$228
Renovations	126
Total	$354

Customer Impact

These projects have no direct customer impact.

ADDITIONS TO REAL PROPERTY (Cont'd)

Project Justification

Property renovations are required to ensure safe and efficient working areas for employees. The property addition projects include a solution for heating problems associated with the Kenmount Road building UPS and completion of the Duffy Place computer facility

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.

ALLOWANCE FOR UNFORESEEN ITEMS

Project Cost

$750,000

Nature of Project

This project is necessary to replace deteriorated electrical equipment. This item is required to cover any unforeseen capital expenditures which have not been budgeted elsewhere. Examples of such expenditures are the replacement of facilities and equipment due to major storm damages or equipment failure.

Customer Impact

This project provides funds for service restoration.

Project Justification

Projects for which these funds are intended are justified on the basis of reliability or the need to replace deteriorated or damaged equipment immediately.

Future Commitment

None.

TELECOMMUNICATIONS

FIBRE OPTIC NETWORKING

Project Cost

$125,000

Nature of Project

This project is necessary to achieve increased operating efficiency and reliability. This project involves the establishment of fibre optic communication links between various substations in the St. John's area. These links will be established by leasing dark fibre circuits from Cable Atlantic. This project involves the purchase and installation of fibre optic based multiplexer equipment to carry voice data and protection signals between substations and the System Control Centre in St. John's.

Customer Impact

This project contributes to improved customer service and safety by supporting teleprotection systems, corporate data systems and supervisory control communications.

Project Justification

This project is justified on the basis of power system reliability improvements. This project supports faster clearing of system faults and minimizing fault impact on the power system.

The fibre optic multiplexer equipment is required to connect numerous pieces of protection and monitoring equipment to the fibre optic cables for communication with the System Control Centre. The multiplexer equipment will provide economic savings by reducing the number of teleline substation protection units required and by permitting the consolidation of voice and data circuits. The multiplexers, by allowing the fibre circuits to be used for multiple purposes, will lower overall telecommunication costs.

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.

SUBSTATION TELEPHONE CIRCUIT PROTECTION

Project Cost

$262,000

Nature of Project

This project is necessary to maintain a safe working environment. This project is the continuation of a two-year project which commenced in 1999. The project will upgrade existing telephone line isolation equipment in substations to ensure that the equipment operates properly during electrical fault conditions.

The project involves:

a) the installation of Teleline Isolation by NewTel Communications at six Newfoundland Power substations;
b) the upgrade of Teleline equipment at three substations;
c) the purchase and installation of wireless connections (cellular, satellite or radio) at various substations;
d) the purchase and installation of fibre optic telephone and data expansion cards at seven substations; and
e) the labour to perform ground potential rise calculations at six substations.

Customer Impact

This project will ensure adequate protection against electric shocks for employees, customers and equipment in and around Company substations.

Project Justification

Telephone communications in substations are critical for employee safety and efficient operation. NewTel Communications requires Newfoundland Power to carry out a program to replace or protect telephone lines in substations in order for them to continue to provide service to these substations. This project meets this requirement.

Alternatives to teleline protection equipment, such as wireless communications and fibre optic communication equipment, will be used if they minimize costs.

SUBSTATION TELEPHONE CIRCUIT PROTECTION (Cont'd)

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.

UPGRADE COMMUNICATION EQUIPMENT

Project Cost

$150,000

Nature of Project

This is a new project justification category introduced for the 2000 Capital Budget. This project is necessary to replace deteriorated communications equipment. This project involves the replacement of VHF pagers, mobile radios, upgrades to repeater sites, and telephone system improvements.

This category includes numerous small projects less than $50,000 that would not have been specifically identified in previous capital budget submissions. The project cost is based on a combination of historical costs and individual project estimates. For reference purposes, the equivalent expenditures for this category in the 1999 Capital Budget would have been approximately $104,000. The 2000 increase is primarily due to a provision to establish telephone disaster recovery at the Call Centre.

Customer Impact

Effective communications are critical to ensuring the safe and reliable operation of the power system.

Project Justification

This project is required to ensure the integrity of the Company's communication system. Equipment is being replaced due to deterioration or technological obsolescence.

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.

TRANSPORTATION

PURCHASE OF VEHICLES AND AERIAL DEVICES

Project Cost

$2,390,000

Nature of Project

This project is necessary for the replacement of vehicles and/or vehicle chassis, vehicle bodies, associated aerial equipment, or a combination of all three. The existing units have reached the end of their useful lives and are beyond economical repair.

The following table lists the project costs for 2000:

Category	Cost (000s)	No. of Units
Passenger/Off-Road Vehicles [1]	$913	43
Heavy Fleet Vehicles [2]	1,477	10
Total	$2,390	53

[1] The Passenger/Off-Road Vehicles category includes the purchase of cars, light duty trucks, snowmobiles, ATVs and trailers.

[2] The Heavy Fleet Vehicles category includes the purchase of 4 replacement line trucks, 5 replacement chassis units to which existing aerial units (boom and bucket) are to be attached, and 1 replacement aerial unit to be attached to an existing chassis unit.

Customer Impact

This project will help maintain an acceptable level of customer service and personnel safety.

Project Justification

All units have been evaluated for factors such as overall condition, maintenance history and immediate repair requirements. Based on this evaluation, it has been determined that each unit has reached the end of its useful life and is beyond economical repair. For passenger vehicles the average life span is five years or 150,000 kilometres. For heavy fleet vehicles the average life span is 10 years or 250,000 kilometres.

New vehicles are acquired through competitive tendering and lease/buy analyses are prepared to ensure the lowest possible cost consistent with reliable service.

Future Commitments

None.

INFORMATION SYSTEMS

APPLICATION ENHANCEMENTS

Project Cost

$974,000

Nature of Project

The purpose of this project is to upgrade computer applications to provide additional capabilities. The additional capabilities are required on various corporate applications primarily to facilitate operational improvements in Customer Service, Human Resources and Regional Operations.

Customer Impact

This project will contribute to the Company's ongoing efforts to achieve operating efficiencies and improve customer service.

Project Justification

The planned application enhancements will enable the Company to improve customer service, comply with legislation, support union contracts and enhance system performance. Additional information is provided at page 8 of a report entitled *Newfoundland Power Inc. Information Technology Strategy for the Period 1999 to 2002* and submitted to the Board on October 29, 1999.

All materials and services for this project are purchased after examining the competitive bids of prospective suppliers.

Future Commitment

None.

APPLICATION ENVIRONMENT

Project Cost

$543,000

Nature of Project

This project involves the acquisition and upgrade of software required to maintain the Company's core applications. These consist primarily of upgrades to software development tools, the Database Management System and Microsoft productivity tools.

Customer Impact

This project will contribute to the Company's ongoing efforts to achieve operating efficiencies and improve customer service.

Project Justification

This project is necessary to take advantage of newly-developed technology capabilities and to ensure that corporate applications continue to operate in a stable and reliable manner. Additional information is provided at page 9 of a report entitled *Newfoundland Power Inc. Information Technology Strategy for the Period 1999 to 2002* and submitted to the Board on October 29, 1999.

All materials and services for this project are purchased after examining the competitive bids of prospective suppliers.

Future Commitment

None.

WORKFLOW TECHNOLOGY

Project Cost

$250,000

Nature of Project

This project involves the replacement of existing workflow technology with software that is fully integrated with the Company's Office Suite and e-mail system, and the migration of existing applications to the new workflow platform.

Customer Impact

This project will contribute to the Company's ongoing efforts to achieve operating efficiencies and improve customer service.

Project Justification

New technology will improve the integration of existing applications, reduce maintenance costs, and provide enhanced workflow capabilities. Additional information is provided at page 9 of a report entitled *Newfoundland Power Inc. Information Technology Strategy for the Period 1999 to 2002* and submitted to the Board on October 29, 1999.

All materials and services for this project are purchased after examining the competitive bids of prospective suppliers.

Future Commitments

None.

CORPORATE REPORTING

Project Cost

$478,000

Nature of Project

This project involves the acquisition and implementation of software that will facilitate the collection, analysis and reporting of data contained in the Company's Financial, Customer Service, Human Resources and Facilities Management systems.

Customer Impact

This project will contribute to the Company's ongoing efforts to achieve operating efficiencies and improve customer service.

Project Justification

These tools will improve financial analysis, operational performance and facilitate more effective managerial decision-making. Additional information is provided at page 9 of a report entitled *Newfoundland Power Inc. Information Technology Strategy for the Period 1999 to 2002* and submitted to the Board on October 29, 1999.

All materials and services for this project are purchased after examining the competitive bids of prospective suppliers.

Future Commitments

None.

INTERNET

Project Cost

$79,000

Nature of Project

The purpose of this project is to improve the Company's Internet site to provide customers with additional options, such as the ability to request a new service, and to view, print and pay bills.

Customer Impact

This project will contribute to the Company's ongoing efforts to achieve operating efficiencies and improve customer service.

Project Justification

This project is justified on the basis of customer expectations and the resulting reduction in customer service human resource requirements. Additional information is provided at page 10 of a report entitled *Newfoundland Power Inc. Information Technology Strategy for the Period 1999 to 2002* and submitted to the Board on October 29, 1999.

All materials and services for this project are purchased after examining the competitive bids of prospective suppliers.

Future Commitments

None.

PERSONAL COMPUTERS

Project Cost

$936,000

Nature of Project

This project involves the replacement or upgrade of personal computers, printers and associated assets that have reached the end of their useful life.

Customer Impact

This project will contribute to the Company's ongoing efforts to achieve operating efficiencies and improve customer service.

Project Justification

This project will enable the Company to accommodate application enhancements and new applications while maintaining current performance standards. Additional information is provided at page 10 of a report entitled *Newfoundland Power Inc. Information Technology Strategy for the Period 1999 to 2002* and submitted to the Board on October 29, 1999.

All materials and services for this project are purchased after examining the competitive bids of prospective suppliers.

Future Commitments

None.

NETWORK INFRASTRUCTURE UPGRADE

Project Cost

$201,000

Nature of Project

The purpose of this project is to maintain and improve the existing network infrastructure of Newfoundland Power by replacing aging and unsupported network components with more modern components.

Customer Impact

This project will contribute to the Company's ongoing efforts to achieve operating efficiencies and improve customer service.

Project Justification

This project will reduce the risk of failure of key components, reduce recovery time in the event of failure, and ensure that the network infrastructure is operating efficiently. Additional information is provided at page 10 of a report entitled *Newfoundland Power Inc. Information Technology Strategy for the Period 1999 to 2002* and submitted to the Board on October 29, 1999.

All materials and services for this project are purchased after examining the competitive bids of prospective suppliers.

Future Commitments

None.

INFRASTRUCTURE ENVIRONMENT

Project Cost

$175,000

Nature of Project

This project involves the addition of new computer hardware and software and upgrades to existing hardware and software to improve infrastructure security, and monitoring and management capabilities.

Customer Impact

This project will contribute to the Company's ongoing efforts to achieve operating efficiencies and improve customer service.

Project Justification

This project will improve system security, increase the availability of applications and reduce infrastructure management costs. Additional information is provided at page 10 of a report entitled *Newfoundland Power Inc. Information Technology Strategy for the Period 1999 to 2002* and submitted to the Board on October 29, 1999.

All materials and services for this project are purchased after examining the competitive bids of prospective suppliers.

Future Commitment

None.

DISASTER RECOVERY

Project Cost

$208,000

Nature of Project

This project involves the purchase and installation of additional shared servers and the further development of recovery plans to improve the Company's disaster recovery capabilities.

Customer Impact

This project will contribute to the Company's ongoing efforts to achieve operating efficiencies and improve customer service.

Project Justification

This project will improve the Company's ability to restore mission critical applications in a timely manner in the event of a disaster. This is essential to the ability to continue business operations and to service customers. Additional information is provided at page 11 of a report entitled *Newfoundland Power Inc. Information Technology Strategy for the Period 1999 to 2002* and submitted to the Board on October 29, 1999.

All materials and services for this project are purchased after examining the competitive bids of prospective suppliers.

Future Commitments

None.

SHARED SERVERS INFRASTRUCTURE

Project Cost

$303,000

Nature of Project

This project involves the replacement or upgrade of the Company's shared servers to maintain current performance standards.

Customer Impact

This project will contribute to the Company's ongoing efforts to achieve operating efficiencies and improve customer service.

Project Justification

This project is necessary to maintain performance standards and to accommodate increased application requirements. Additional information is provided at page 11 of a report entitled *Newfoundland Power Inc. Information Technology Strategy for the Period 1999 to 2002* and submitted to the Board on October 29, 1999.

All materials and services for this project are purchased after examining the competitive bids of prospective suppliers.

Future Commitments

None.

Newfoundland Power Inc.
2000 Capital Budget
Leases over $5,000

	Yearly	Term
Photocopiers	$40,000	3 Years

REPLACE ADDITIONAL PENSTOCK - PETTY HARBOUR

Project Cost

$625,000

Nature of Project

In October 1998 the woodstave penstock at Petty Harbour experienced a major leak. A 200 meter section of the penstock was replaced with steel penstock at a cost of $384,000. In January 1999 it was found that and additional 320 meters of woodstave penstock located along side the roadway had developed more severe leakage and had to be replaced. In Order No. P.U. 6 (1999-2000) the Board approved the replacement of this 320 meter section of penstock at a forecast cost of $700,000. It since became apparent that the remaining section of penstock leading to the power plant was leaking significantly and it became necessary to replace an additional 200 meters at a forecast cost of $625,000.

Customer Impact

This project will impact public safety.

Project Justification

Petty Harbour Penstock Repair
Summary of Capital Expenditures
1998 and 1999

Year	Meters	(000s)
1998	200	$ 384
1999	320	700
1999	200	625
		$1,709

This project is necessary as the condition of the penstock poses an unacceptable safety risk to the general public and our maintenance staff. The safety concerns necessitate this project being completed before the 1999-2000 winter season. The rebuilding of a total of 720 metres of penstock replaces a project that would have seen the relocation and replacement of the penstock which was

REPLACE ADDITIONAL PENSTOCK - PETTY HARBOUR (Cont'd)

estimated to cost between $2.5 and $3.0 million. The original project was scheduled to be completed in 2000. No additional expenditures are included in the 2000 Capital Budget with respect to the Petty Harbour penstock.

The alternative to maintaining this plant would be to retire it. This facility has an average annual production of approximately 18 GWh. Replacing only the energy produced by this facility by increasing production at the Holyrood generation facility would require approximately 30,000 barrels of fuel annually. At a cost of $18 per barrel, this would translate into a fuel saving of more than $540,000 annually. This is the energy replacement savings only and does not consider other items such as the capacity, system stability, and reliability that this facility adds to the system.

Future Commitments

None.

EQUIPMENT - HEAD OFFICE
MAILROOM EQUIPMENT

Project Cost

$170,000

Nature of Project

This project involves the purchase of a new mail inserter.

Customer Impact

This project will increase the efficiency of the mailroom operation.

Project Justification

The purchase of a new mail inserter was approved at a cost of $250,000 in Order P.U. 36 (1998-99). This purchase was justified during the 1999 Capital Budget process as a replacement of an existing seven year old inserter which was experiencing more frequent service requirements and associated periods of down time. As well, the new mail inserter incorporated increased functionality and improved operating efficiencies.

As a result of a requirement for increased capital expenditures stemming from various reliability initiatives, the transformer replacement program and storm damage, the Company determined it would defer the purchase of a new mail inserter to early 2000.

Newfoundland Power has become aware that a new mail inserter is now available for purchase at a lower cost than was originally anticipated.

Future Commitments

None.

INFORMATION SYSTEMS
CLIENT SERVER BACKUP HARDWARE/SOFTWARE

Project Cost

$340,000

Nature of Project

This project involves the purchase of additional servers for the purpose of system backup.

Customer Impact

This project will ensure quick recovery of computer applications in the event of a disaster.

Project Justification

The purchase of backup client servers was approved at a cost of $553,000 in Order P.U. 36 (1998-99). This purchase was justified during the 1999 Capital Budget process due to the migration to client server technology being largely complete and the additional investment in backup servers would provide increased disaster recovery capability for the client server environment.

As a result of a requirement for increased capital expenditures stemming from various reliability initiatives, the transformer replacement program and storm damage, the Company determined it would defer $450,000 of the total $553,000 for the backup client servers until 2000.

In assessing system redundancy in the 3rd quarter of 1999, it was determined that the Company's back-up server capacity would not accommodate any system other than the Customer Service System. An additional server will enable other systems to be recovered in the event of a disaster.

Future Commitments

None.

Newfoundland Power Inc.
2000 Capital Budget
Estimate of Future Required Expenditures on
Projects Commenced in 2000
(000s)

Budget Class and Project	2000	2001
Substations		
St. John's Area Transmission Relaying	$308	$511
Energy Supply		
Sandy Brook Hydro Plant Turbine Upgrade	$300	$560

Newfoundland Power Inc.
2000 Capital Budget
1999 Capital Budget Variances
(000s)

	Approved by Order Nos. P.U. 36 (1998-99) & P.U. 6 (1999-2000)	Forecast	Variance
Energy Supply	$ 7,085	$ 7,305	$ 220
Substations	2,989	3,245	256
Transmission	2,114	2,086	(28)
Distribution	16,143	16,545	402
General Property	2,706	2,360	(346)
Transportation	1,946	1,815	(131)
Telecommunications	453	346	(107)
Information Systems	3,834	3,988	154
General Expenses Capital	2,626	2,626	-
Total	$ 39,896	$ 40,316	$ 420
1998 Carry-overs		1,062 *	
		$ 41,378	

* 1998 Carryovers from Order Nos. P.U. 15 (1997-98), P.U. 17 (1997-98) and P.U. 17 (1998-99) Carryovers include $546,000 - Rose Blanche Hydro Plant; $370,000 - Bay Bulls Big Pond Dam; $66,000 - Replace Bus and Switch (Grand Falls Substation); $80,000 - Projects less than $50,000.

Newfoundland Power Inc.
2000 Capital Budget
Rate Base
(000s)

	Historical Data			
	1997	1998	Forecast 1999 [1]	Forecast 2000
Plant Investment	$838,348	$867,270	$892,805	$925,761
Deduct:				
Accumulated Depreciation	349,934	362,933	380,521	404,117
Contributions in Aid of Construction	20,760	20,048	19,526	19,472
Deferred Income Taxes	79	-	-	-
Weather Normalization Reserve	(3,706)	(5,022)	(6,021)	(6,021)
	367,067	377,959	394,026	417,568
	471,281	489,311	498,779	508,193
Add - Contributions Country Homes	223	333	333	333
Balance - Current Year	471,504	489,644	499,112	508,526
Balance - Previous Year	467,141	471,504	489,644	499,112
Average	469,323	480,574	494,378	503,332 [2]
Cash Working Capital Allowance	4,545	4,413	4,458	4,488
Materials and Supplies	3,551	3,217	3,677	3,268
Average Rate Base at Year End	$477,419	$488,204	$502,513	$511,088

1. Revised from forecast of $494,723,000 found at page 79 of Order No. P.U. 36 (1998-99).

2. Reduced by $486,722 as ordered by Order No. P.U. 36 (1998-99).

Newfoundland Power Inc.
2000 Capital Budget
Invested Capital

	Forecast 1999		Forecast 2000	
	(000s)	%	(000s)	%
Common Equity	$ 240,387	44.01%	$ 249,640	44.04%
Debt	295,998	54.18%	307,360	54.22%
Preferred Equity	9,890	1.81%	9,890	1.74%
Total	$ 546,275 [1]	100.00%	$ 566,403 [2]	100.00%

1. Revised from forecast of $541,288,000 found at Exhibit KWS-10 (1st Revision), Page 1 of 1 filed on November 12, 1998.

2. This total has been reduced by $486,722 to conform to reduction from rate base as ordered by Order No. P.U. 36 (1998-99).

Newfoundland Power Inc.
2000 Capital Budget
Calculation of Rate of Return on Rate Base
(at an allowed return on equity of 9.25%)

Return on Rate Base Formula Approved by Order No. P.U. 36 (1998-99):

$$\textbf{Rate of Return on Rate Base} = \left[\frac{\text{Invested Capital}}{\text{Rate Base}} \times \text{Weighted Average Cost of Capital}\right] + \frac{Z}{\text{Rate Base}}$$

Where Z represents amounts which are recognized in the calculation of either weighted average cost of capital or rate of return on rate base, *but not both. These amounts include:*

(a) Amortization of Capital Stock Issue Expenses (Recognized in the rate of return on rate base calculation but not the weighted average cost of capital calculation.);

(b) Interest on Customer Deposits (Recognized in the weighted average cost of capital calculation but not the rate of return on rate base calculation.); and,

(c) Interest Charged to Construction (Recognized in the rate of return on rate base calculation but not the weighted average cost of capital calculation.).

Test Year 1999 (approved by Order No. P.U. 36 (1998-99)):

$$\textbf{9.98\%} = \left[\frac{\$\ 541{,}288}{\$\ 494{,}723} \times 9.16\%\right] + \frac{\$\ 78 + \$\ 30 - \$\ 328}{\$494{,}723}$$

Forecast 2000 rate base and invested capital values (as proposed in this Application [1]):

$$\textbf{10.11\%} = \left[\frac{\$\ 566{,}403}{\$\ 511{,}088} \times 9.16\%\right] + \frac{\$\ 78 + \$\ 30 - \$\ 328}{\$511{,}088}$$

1. Except for forecast 2000 rate base and invested capital values, this calculation employs test year values, including an allowed return on equity of 9.25%. The actual calculation of rate of return on rate base for 2000 will include a return on equity calculated in accordance with Orders No. P.U. 16 and 36 (1998-99).