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

IN THE MATTER OF an amended application by Newfoundland Power Inc. for an order pursuant to Sections 38, 41, 78 and 80 of the Act:

(a) approving its 2002 Capital Budget; and
(b) (i) fixing and determining its average rate base for 2000 in the amount of $520,979,000; (ii) approving its revised forecast average rate base for 2001 in the amount of $541,496,000; and (iii) approving its forecast average rate base for 2002 in the amount of $562,983,000;
(c) approving revised values for rate base and invested capital for use in the automatic adjustment formula (the "Automatic Adjustment Formula") for the calculation of return on rate base for 2002 pursuant to Orders No. P.U. 16 and 36 (1998-99), No. P.U. 18 (1999-2000) and P.U. 24 (2000-2001); and
(d) consenting to the relocation of a gas turbine generator ("the Generator")

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

THE AMENDED 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 amended Application is a summary of Newfoundland Power's 2002 Capital Budget in the amount of $54,619,000 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 2002. All contributions to be recovered from customers shall be calculated in a manner approved by the Board.

3. Schedule B to this amended Application is a list of those 2002 capital expenditures, exclusive of general expenses capital, which comprise Newfoundland Power's 2002 Capital Budget.

4. Schedule C to this amended Application is an estimate of future required expenditures on improvements or additions to the property of Newfoundland Power that are included in the Distribution and Information Systems categories of the 2002 Capital Budget but will not be completed in 2002.

5. Schedule D to this amended Application shows the variances between 2001 capital expenditures approved by Order P.U. 24 (2000-2001), Order P.U. 12 (2001-2002) and Order P.U. 17 (2001-2002) and the projected actual capital expenditures of Newfoundland Power for 2001.

6. The proposed expenditures as set out in Schedules A through D of this amended 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.

7. Schedule E to this amended Application shows Newfoundland Power's actual average rate base for 2000 of $520,979,000; revised forecast average rate base for 2001 of $541,496,000, and forecast average rate base for 2002 of $562,983,000.

8. Schedule F to this amended Application shows Newfoundland Power's revised forecast average invested capital for 2001 of $589,995,000 and forecast average invested capital for 2002 of $626,870,000.

9. Schedule G to this amended Application shows the calculation of the rate of return on rate base for Newfoundland Power using the values approved by the Board by virtue of Order Nos. P.U. 18 (1999-2000) and P.U. 24 (2000-2001); and the rate of return on rate base using the forecast average rate base and forecast average invested capital for 2002 as set out in paragraphs 7 and 8 of this amended Application.

10. As the Board determined in Order Nos. P.U. 18 (1999-2000) and P.U. 24 (2000-2001), the use of current forecasts of average rate base and average invested capital for use in the Automatic Adjustment Formula is appropriate. 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 2002 by the Automatic Adjustment Formula is inappropriate as the Board has approved, in Order No. P.U. 12 (2001-2002) and Order No. P.U. 17 (2001-2002), additional capital expenditures of Newfoundland Power subsequent to Orders No. P.U. 16 (1998-99), No. P.U. 36 (1998-99), No. P.U. 18 (1999-2000) and No. P.U. 24 (2000-2001), and will have approved further additional capital expenditures by approving the 2002 Capital Budget. These approvals, in effect, increase Newfoundland Power's forecast average rate base and invested capital for 2002. 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 forecasts of average rate base and average invested capital in calculating the allowed rate of return on rate base.

11. In addition to the above, the Company is requesting consent to relocate a gas turbine generator. The Generator is a 13.4 MW gas turbine generating unit that is currently located at Salt Pond on the Burin Peninsula. The Generator has historically been used for emergency local generation. In 1990, Newfoundland and Labrador Hydro completed construction of a second transmission line to serve the Burin Peninsula. This new transmission line provides a redundant supply of electricity that reduces the need for emergency local generation in the area. The Generator has only been required for backup

generation during unscheduled outages on 3 occasions since 1990. Newfoundland Power's 2002 Capital Budget includes a project to relocate the Generator from its current location at Salt Pond to Newfoundland Power's Wesleyville Substation in Bonavista North, which is currently served by a long radial transmission line (Schedule B, page 15 of 66). The relocation of the Generator from its current location will not adversely affect the reliability of service provided by Newfoundland Power to the Burin Peninsula, nor will it impair the ability of Newfoundland Power to provide electrical energy as required by Section 54 of the Act. The relocation of the Generator to the Wesleyville Substation will improve the reliability of service provided by Newfoundland Power to the Bonavista North area. Section 38 of the Act requires that the written consent of the Board to discontinue a service shall only be given after notice is provided to an incorporated municipal body interested, and after there has been an inquiry.

12. Communication with respect to this amended Application should be forwarded to the attention of Gillian Butler, Q.C. and Peter Alteen, Counsel to Newfoundland Power.

13. 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 2002 of the improvements and additions to its property as set out in this amended Application; and

(b) pursuant to Section 78 of the Act:

(i) fixing and determining Newfoundland Power's average rate base for 2000 in the amount of $520,979,000;
(ii) approving Newfoundland Power's revised forecast average rate base for 2001 in the amount of $541,496,000, and
(iii) approving Newfoundland Power's forecast average rate base for 2002 in the amount of $562,983,000.

(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 2002.

(d) pursuant to Section 38 of the Act consenting to the relocation of the Generator from its current location.

DATED at St. John's, Newfoundland, this 4th day of September, 2001.

NEWFOUNDLAND POWER INC.

Gillian Butler, 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 amended application by Newfoundland Power Inc. for an order pursuant to Sections 38, 41, 78 and 80 of the Act:

(a) approving its 2002 Capital Budget; and
(b) (i) fixing and determining its average rate base for 2000 in the amount of $520,979,000; (ii) approving its revised forecast average rate base for 2001 in the amount of $541,496,000; and (iii) approving its forecast average rate base for 2002 in the amount of $562,983,000;
(c) approving revised values for rate base and invested capital for use in the automatic adjustment formula (the "Automatic Adjustment Formula") for the calculation of return on rate base for 2002 pursuant to Orders No. P.U. 16 and 36 (1998-99), No. P.U. 18 (1999-2000) and P.U. 24 (2000-2001); and
(d) consenting to the relocation of a gas turbine generator ("the Generator")

AFFIDAVIT

I, Earl A. Ludlow, 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 Operations, 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 4th day of September, 2001,
before me:

Barrister

Earl A. Ludlow

Newfoundland Power Inc.
2002 Capital Budget
Budget Summary
(000s)

Energy Supply	$	7,173
Substations		4,477
Transmission		2,861
Distribution		27,188
General Property		1,420
Transportation		2,200
Telecommunications		502
Information Systems		6,298
General Expenses Capital		2,500
Total	$	54,619

Newfoundland Power Inc.
2002 Capital Budget

ENERGY SUPPLY

	(000s)	Details on Page
HYDRO PLANTS – FACILITY REHABILITATION	$1,771	9
THERMAL PLANTS – FACILITY REHABILITATION	478	11
GAS TURBINE – REPLACE GOVERNOR & CONTROL LOGIC	500	13
PENSTOCK REPLACEMENT – SEAL COVE	2,600	14
GAS TURBINE RELOCATION	1,674	15
MAJOR ELECTRICAL EQUIPMENT REPAIRS	150	16
TOTAL – ENERGY SUPPLY	$7,173	

Newfoundland Power Inc.
2002 Capital Budget

SUBSTATIONS

	(000s)	Details on Page
REBUILD SUBSTATIONS	$428	17
REPLACEMENT AND SPARE SUBSTATION EQUIPMENT	1,605	18
RELIABILITY AND POWER QUALITY IMPROVEMENTS	110	20
MODIFICATIONS TO ACCOMMODATE GAS TURBINE	480	21
SUBSTATION PROTECTION AND MONITORING IMPROVEMENTS	261	22
DISTRIBUTION SYSTEM – FEEDER REMOTE CONTROL	1,000	23
ST. JOHN'S AREA TRANSMISSION RELAYING IMPROVEMENT PROGRAM	593	25
TOTAL – SUBSTATIONS	$4,477	

Newfoundland Power Inc.
2002 Capital Budget

TRANSMISSION

	(000s)	Details on Page
REBUILD TRANSMISSION LINES	$2,811	27
RELOCATION OF TRANSMISSION LINES FOR THIRD PARTIES	50	29
TOTAL - TRANSMISSION	**$2,861**	

Newfoundland Power Inc.
2002 Capital Budget

DISTRIBUTION

	(000s)	Details on Page
EXTENSIONS	$3,621	30
METERS	783	31
SERVICES	1,665	32
STREET LIGHTING	1,020	33
TRANSFORMERS	4,805	35
RECONSTRUCTION	2,156	37
ALIANT POLE PURCHASE	8,088	37A
TRUNK FEEDERS		
Rebuild Distribution Lines	2,940	38
Relocate/Replace Distribution Lines For Third Parties	270	40
Distribution Reliability Initiative	1,050	42
Improve Distribution System Protection/Operation	328	44
Replace Underground Switches - Water Street, St. John's	362	45
INTEREST DURING CONSTRUCTION	100	46
TOTAL - DISTRIBUTION	**$27,188**	

Newfoundland Power Inc.
2002 Capital Budget

GENERAL PROPERTY

	(000s)	Details on Page
TOOLS AND EQUIPMENT	$347	47
ADDITIONS TO REAL PROPERTY	323	49
ALLOWANCE FOR UNFORESEEN ITEMS	750	50
TOTAL – GENERAL PROPERTY	**$1,420**	

Newfoundland Power Inc.
2002 Capital Budget

TRANSPORTATION

	(000s)	Details on Page
PURCHASE OF VEHICLES AND AERIAL DEVICES	$2,200	51
TOTAL – TRANSPORTATION	**$2,200**	

Newfoundland Power Inc.
2002 Capital Budget

TELECOMMUNICATIONS

	(000s)	Details on Page
FIBRE OPTIC NETWORKING	$264	52
REPLACE/UPGRADE COMMUNICATIONS EQUIPMENT	136	53
COMMUNICATIONS FOR GAS TURBINE RELOCATION	102	54
TOTAL – TELECOMMUNICATIONS	**$502**	

Newfoundland Power Inc.
2002 Capital Budget

INFORMATION SYSTEMS

	(000s)	Details on Page
APPLICATION ENHANCEMENTS	$702	55
APPLICATION ENVIRONMENT	670	57
FACILITIES MANAGEMENT	939	59
OPERATIONS SUPPORT SYSTEMS	1,322	60
BUSINESS SUPPORT SYSTEMS	590	61
HANDHELD METER READING SYSTEMS	619	62
PERSONAL COMPUTER INFRASTRUCTURE	654	63
SHARED SERVERS INFRASTRUCTURE	689	65
INTERNET	113	66
TOTAL – INFORMATION SYSTEMS	$6,298	

ENERGY SUPPLY

HYDRO PLANTS
FACILITY REHABILITATION

Project Cost

$1,771,000

Nature of Project

This project is necessary for 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.

The project involves:

a) replacement/rehabilitation work at 11 of the Company's 23 hydroelectric plants. The work includes the replacement or rehabilitation of various retaining walls, dams, bridges, a power house crane, cooling coils and a generator breaker;

b) work related to plant efficiency, reliability or the environment. The work includes the addition of a trash rack clearing system, fisheries habitat, and replacement of programmable logic controllers (PLC) and governors at various hydroelectric plants.

The following table lists the projects for 2002:

Project	Cost (000s)
Fisheries Habitat - various plants	$150
Public Safety Items - various plants	148
Cooling Coil and Controls Replacement - various plants	80
Generator Switchgear Replacement - Seal Cove	153
Generator Governor and PLC Replacements -various plants	762
Pivot Valve Replacement - Seal Cove	145
Power House Crane Replacement - Seal Cove	55
Dam Rehabilitation - Fall Pond	50
Retaining Wall Rehabilitation - Heart's Content	50
Various Projects < $50,000	178
Total	**$1,771**

HYDRO PLANTS
FACILITY REHABILITATION (Cont'd)

Customer Impact

These facilities provide energy to the Island Interconnected Electrical System and maintaining these generating facilities and infrastructure reduces the need for developing additional, more expensive generation capacity.

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 423 GWh. Replacing only the energy produced by these facilities by increasing production at the Holyrood generation facility would require approximately 700,000 barrels of fuel annually. At current oil prices ($28/bbl), this translates into approximately $20 million in annual savings. Maintaining these generating facilities also contributes to system stability and in many cases provides a source for local power backup.

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 replacement options.

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

$478,000

Nature of Project

This project is necessary for the replacement or rehabilitation of deteriorated thermal plant (diesel and gas turbine) 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.

The following table lists the projects for 2002:

Project	Cost (000s)
Air Intake Enclosure Replacement - Salt Pond Gas Turbine	$150
Replacement of Fuel Tank - Greenhill Gas Turbine	250
Various Projects < $50,000	78
Total	**$478**

Customer Impact

These facilities benefit customers by ensuring the availability of 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 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.

THERMAL PLANTS
FACILITY REHABILITATION (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.

GAS TURBINE
REPLACE GOVERNOR & CONTROL LOGIC

Project Cost

$500,000

Nature of Project

This project is necessary to replace deteriorated and obsolete equipment and involves replacing the governor and associated control logic on the gas turbine currently located at Salt Pond. The gas turbine is to be relocated to the Wesleyville Substation (Schedule B, page 15 of 66).

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

The governor is deteriorated and obsolete. 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 13 MW of backup generation capacity. Replacement of this capacity would cost in excess of $1,000,000 per MW, for a total replacement cost of approximately $13,000,000.

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.

PENSTOCK REPLACEMENT
SEAL COVE

Project Cost

$2,600,000

Nature of Project

This project is necessary to replace deteriorated equipment and involves the replacement of a 1,220 metre penstock at the Seal Cove Hydroelectric Plant.

Customer Impact

This project will help minimize increases in electricity rates by maintaining existing hydro generation and avoiding more expensive thermal generation.

Project Justification

The 49-year-old penstock at the Seal Cove plant is in a deteriorated condition, and the deterioration is accelerating. Replacement is now essential for the continued safe operation of the plant.

The alternative to maintaining this plant would be to retire it. This facility has an average annual production of approximately 9.7 GWh. Replacing only the energy produced by this facility by increasing production at the Holyrood generation facility would require approximately 16,000 barrels of fuel annually. At a cost of $28 per barrel, this translates into a fuel saving of approximately $450,000 annually.

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

Future Commitments

None.

GAS TURBINE RELOCATION

Project Cost

$1,674,000

Nature of Project

This project is necessary to complete the relocation of a gas turbine from the Salt Pond Substation to the Wesleyville Substation. The work includes the dismantling, transportation and reassembly of the generating unit, as well as construction of a building to house the unit at the new location.

Customer Impact

This project will provide increased electrical system reliability to customers in the Bonavista North area by providing a backup source of energy during outages on the single radial transmission line serving the area. The project will not materially affect the reliability of service to customers in the Burin area.

Project Justification

The Bonavista North area is currently served by a single radial transmission line. This line has experienced higher than average annual SAIFI and SAIDI statistics for the past five years (an average of 3.59 outages and 9.06 hours respectively). The reliability statistics are impacted by the nature of the environment in this area and the fact that approximately 30% of the transmission line is remotely located making access to the line for repairs difficult and service restoration time longer. The Company has explored various options for improving the reliability of service to the area. These options include constructing a second transmission line to serve the area, installing a new source of generation, and relocating an existing generator. Of the three alternatives the least cost option is the relocation of an existing generator. The estimated cost of a second transmission line is approximately $7.0 million, while the cost of a new generator is estimated to be approximately $8.0 million.

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.

MAJOR ELECTRICAL EQUIPMENT REPAIRS

Project Cost

$150,000

Nature of Project

This project is necessary to provide for the unanticipated cost of major equipment replacement or rehabilitation occasioned by deterioration or catastrophic failure. Major equipment includes transformers, generators and turbines. The project cost is based on an assessment of historical expenditures. For comparison purposes, a similar amount for this item was included in the 2001 Capital Budget.

Customer Impact

The project provides the funds to replace failed equipment to maintain or restore electrical service.

Project Justification

Past experience indicates that unforeseen equipment failures will occur. Projects covered by this budget item in the past include generator rewinding, power transformer rehabilitation, replacement of power connection cables and refurbishment of surge tank components.

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.

SUBSTATIONS

REBUILD SUBSTATIONS

Project Cost

$428,000

Nature of Project

This project is necessary for the replacement of deteriorated substation infrastructure, such as bus structures, poles and support structures, equipment foundations, switches and other equipment.

The following table lists the projects for 2002:

Project	Cost ($000s)
Replace bus structure - Gander Substation	$250
Site improvement/repairs at ten substations	118
Replace switch connectors - St. John's Area	60
Total	**$428**

Customer Impact

This project will maintain the reliability and continuity of electrical service and eliminate potential employee safety hazards associated with the deteriorated substation infrastructure.

Project Justification

The project is justified by the need to replace deteriorated equipment. These expenditures will ensure reliable service and address potential safety concerns.

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.

REPLACEMENT AND SPARE SUBSTATION EQUIPMENT

Project Cost

$1,605,000

Nature of Project

This project is necessary for the replacement of obsolete and/or unreliable electrical equipment and the maintenance of appropriate levels of spare equipment for use during emergencies.

The following table lists the projects for 2002:

Project	**Cost ($000s)**
Replace deteriorated power transformers - Rattling Brook	$730
Replace radiators/cooling fans – King's Bridge, Laurentian and Salt Pond	100
Replace circuit breakers - Clarke's Pond and Harmon	332
Purchase of spare substation equipment	443
Total	**$1,605**

The need to replace equipment is determined on the basis of tests, inspections and the operational history of the equipment. The maintenance of adequate levels of spare equipment is based on past experience and engineering judgement, as well as a consideration of the impact the loss of a particular apparatus would have on the electrical system.

Customer Impact

This project provides for the ready availability of spare or replacement equipment to facilitate restoration of service following failure of a major component of the electrical equipment infrastructure.

REPLACEMENT AND SPARE SUBSTATION EQUIPMENT (Cont'd)

Project Justification

The cost of this project is justified based on the need to replace equipment to restore and maintain service. The budget estimate is based on equipment inspections and historical replacement requirements, as well as on assessments of the current stock of spare 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.

RELIABILITY AND POWER QUALITY IMPROVEMENTS

Project Cost

$110,000

Nature of Project

This project involves the addition to substations of equipment that is necessary to improve power quality and reliability.

A transformer with an on-load tap changer will be installed at the Harbour Grace Substation to ensure appropriate distribution voltages are maintained for customers in the area. Equipment will be installed at Gander Bay and Port Union Substations to accommodate transmission line switching, thus eliminating the need for an outage to customers.

Customer Impact

This project will ensure customers are supplied appropriate voltage levels and will reduce power interruptions to customers.

Project Justification

The installation of the transformer will alleviate voltage regulation problems being experienced in the area. The Company follows guidelines established by the Canadian Standards Association for maintaining voltage levels. The installation of appropriate equipment at Gander Bay and Port Union will minimize the number of outages required in order to maintain the transmission lines in the area.

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

Future Commitments

None.

MODIFICATIONS TO ACCOMMODATE GAS TURBINE

Project Cost

$480,000

Nature of Project

This project is necessary to complete the substation work associated with the relocation of a gas turbine from the Salt Pond Substation to the Wesleyville Substation. The project will involve enlarging the site at Wesleyville to accept the relocated generating unit, as well as modifications to substation structures to accommodate the connection of the gas turbine. The project also includes enhancements to the control equipment at the Gambo Substation for system synchronizing.

Customer Impact

This project will provide increased electrical system reliability to customers in the Bonavista North area by providing a backup source of energy during outages on the single radial transmission line serving the area.

Project Justification

The Bonavista North area is currently served by a single radial transmission line. This line has experienced higher than average annual SAIFI and SAIDI statistics for the past five years (an average of 3.59 outages and 9.06 hours respectively). The reliability statistics are impacted by the nature of the environment in this area and the fact that approximately 30% of the transmission line is remotely located making access to the line for repairs difficult and service restoration time longer. The Company has explored various options for improving the reliability of service to the area. These options include constructing a second transmission line to serve the area, installing a new source of generation, and relocating an existing generator. Of the three alternatives the least cost option is the relocation of an existing generator. The estimated cost of a second transmission line is approximately $7.0 million, while the cost of a new generator is estimated to be approximately $8.0 million.

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

$261,000

Nature of Project

This project is necessary for the replacement of protective relaying equipment and metering equipment required to maintain system protection and increase operating reliability.

Protective relaying equipment is used to detect abnormal conditions on the electrical system, and to either initiate a disconnection of the affected portion of the system, where appropriate, or warn system operators of the existence of the condition.

This project will make improvements to the protection and monitoring systems to allow for the safe and reliable operation of substations. It includes such items as the installation of digital recording voltmeters, replacement of control panels, and the addition of voltage measuring devices (potential transformers) to improve energy and demand metering at substations.

Customer Impact

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

Project Justification

The project is justified on the basis of maintaining the reliability and safe operation of the electrical system. Protection modifications will minimize outage times, while monitoring improvements will allow potential problems such as voltage variations to be identified before they lead to deteriorated service to customers.

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

Future Commitments

None.

DISTRIBUTION SYSTEM
FEEDER REMOTE CONTROL

Project Cost

$1,000,000

Nature of Project

This project involves replacing a number of aging, limited function, electromechanical feeder relays and oil-filled reclosers with modern multi-function electronic relays and reclosers that can be remotely controlled from the System Control Center (SCC).

Customer Impact

The installation of electronic reclosers and relays that can be monitored and controlled from the SCC will result in faster detection of a failure on the feeder system and provide for more rapid restoration of service. Also, the SCC will be able to remotely de-energize feeders or sections of feeders in emergency situations thus increasing public safety.

Project Justification

The Company's existing electromechanical feeder relays and oil-filled reclosers are nearing the end of their useful life and will require replacement over the next few years. These devices are integral to maintaining the safety and reliability of the electrical system. The safety function of a recloser or relay stems from its ability to disrupt power to a section of a distribution feeder should the line become unstable due to a catastrophic event, such as a downed power line or broken pole. A recloser will aid reliability in that it can operate to automatically restore service in the event of a temporary fault on the electrical system (e.g. lines slapping together), therefore reducing outage duration.

The project is justified on the basis of improvements in safety, operating efficiencies, power system reliability and a reduction in risk to the environment. The benefits of installing electronic reclosers include: reduced operating costs by eliminating the need to undertake a field visit to manually operate the recloser for maintenance on distribution lines, and by the fact that the new electronic reclosers will require less maintenance; reduced power outage restoration times, as the SCC will receive immediate notification of the location of power interruptions on the distribution line and can dispatch crews accordingly; reduced environmental risk from the elimination of oil-filled reclosers; increased public safety as the SCC will be able to remotely de-energize feeders or sections of feeders in emergency situations.

DISTRIBUTION SYSTEM
FEEDER REMOTE CONTROL (Cont'd)

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

Future Commitments

None.

ST. JOHN'S AREA TRANSMISSION RELAYING IMPROVEMENT PROGRAM

Project Cost

$593,000

Nature of Project

This project is necessary to help maintain the reliability and security of the electrical system.

This project represents the second phase of an ongoing initiative to establish and/or upgrade pilot wire relaying, as well as breaker and relay failure monitoring schemes, for identified 66 kV transmission lines. The pilot wire portion of the initiative will be completed in 2001. This second phase of the project will complete the monitoring schemes to detect failure of relays and high voltage breakers in substations where pilot wire relaying has been installed.

Customer Impact

This project provides for the safe clearing of faults on the electrical system and maintains operation of the system to avoid unnecessary power interruptions to customers.

Project Justification

This project results from recommendations jointly developed by Newfoundland Power and Newfoundland and Labrador Hydro to reduce system-wide disturbances related to problems on the transmission grid. These improvements are being made to designated transmission line protection schemes so as to disconnect faulted lines from the electrical system in a shorter time frame and reduce the likelihood of impacting the stability of major generation facilities, such as Holyrood, Bay d'Espoir and Cat Arm. This project will aid in avoiding situations which could result in system-wide customer outages or damage to customer or utility equipment.

From 1999 to 2001, pilot wire relaying using fibre optic communication cables was installed as the primary means of protection for designated transmission lines. In 2002, backup protection involving monitoring schemes to detect relay and high voltage breaker failures will be incorporated into substations where the pilot wire relaying has been installed.

These schemes will monitor the actions of the pilot wire relays and their associated breakers. If a faulted transmission line is not disconnected from the electrical system within the prescribed 10 cycles (or 1/6 second) by the primary pilot wire protection, the monitoring schemes will provide backup protection and initiate action to ensure the faulted line is removed from service within 30 cycles (or 1/2 second), thereby reducing the likelihood of any significant impact on the provincial electrical system.

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

This project will help maintain the reliability and security of the electrical 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.

TRANSMISSION

REBUILD TRANSMISSION LINES

Project Cost

$2,811,000

Nature of Project

This project is necessary to replace poles, crossarms, conductors, insulators and miscellaneous hardware due to deficiencies identified during annual inspections.

This project category includes numerous projects aimed at rebuilding and replacing deteriorated transmission structures and conductors. The project cost is based on a combination of historical costs and individual project estimates.

Expenditures on transmission line rebuilds is increasing as many older lines are experiencing pole, crossarm, and brace deterioration to the point where replacement is required to maintain the strength and integrity of the line. Thirty per cent of the Company's transmission lines are in excess of forty years of age. As well, inspections and testing activities have revealed significant increases in the quantities of corroded conductors in some locations. This is causing upward pressure on transmission rebuild requirements.

The following table lists the projects for 2002:

Project	Cost (000s)
Goulds to Mobile - 24L	$800
Salt Pond to Grand Bank - 301L	870
Clarenville to Catalina - 123L	83
Clarenville to Gambo - 124L	60
St. John's Main to Goulds - 4L	54
Repairs to various lines in St. John's Area	225
Repairs to various lines in Avalon Area	150
Repairs to various lines in Burin Area	50
Projects < $50,000	519
Total	**$2,811**

Customer Impact

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

REBUILD TRANSMISSION LINES (Cont'd)

Project Justification

Replacement of this deteriorated 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

$50,000

Nature of Project

This project is necessary to accommodate requests from third parties for the relocation of transmission lines.

For 2002, relocation is required on one transmission line in St. John's. This relocation is 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 on an individual project estimate.

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.

DISTRIBUTION

EXTENSIONS

Project Cost

$3,621,000

Nature of Project

This project is necessary to construct both primary and secondary lines to connect new customers to the electrical distribution system. The project also includes upgrades to the capacity of existing lines to accommodate customers who increase their electrical load. The project cost estimate includes all labour, materials, and other costs to install poles, wires and related hardware.

The project cost for the connection of new customers is calculated on the basis of historical data for specific operating areas. Historical annual expenditures are adjusted for inflation and 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 then modified by the GDP Deflator for Canada before being multiplied by the forecast number of new customers to determine the budget estimate. The forecast number of new customers is derived from economic projections provided by the Conference Board of Canada.

The cost of capacity upgrades is based on individual project estimates.

Customer Impact

This project enables the Company to construct power lines to extend service in response to customer requests for service. It also allows the Company to upgrade lines in response to customers requesting additional supply capacity.

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

$783,000

Nature of Project

This project is necessary to accommodate customer growth and to replace deteriorated electrical equipment. The project cost includes the cost of meters for new customers and replacement meters for existing customers. The quantity of meters for new customers is based on the Company's forecast of customer growth. The quantity of meters 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.*

Customer Impact

This project provides for metering installations necessary to meet customer's electrical service requirements. Through a rigorous meter testing and replacement program, customers are provided with accurate metering of their electricity consumption.

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

$1,665,000

Nature of Project

This project is necessary to provide for the installation of service wires to connect new customers to the electrical distribution system. Service wires are low voltage wires that connect the customer's electrical service equipment to the utility's transformers. Also included in this category is the replacement of existing service wires due to deterioration, failure or damage, as well as the installation of larger wires to accommodate customers' additional load.

Expenditures on this project are driven by both customer growth and the Company's experience with regard to service wires that must be replaced to maintain reliable service and power quality. The projected expenditures for Services for 2002 are $1,168,000 for new services and $497,000 for replacement services.

With the exception of some small individually estimated projects, the project cost is calculated on the basis of historical data. For new services, historical annual expenditures are adjusted for inflation and divided by the number of new customers in each year to derive an average new service cost per customer. Unusually high and low data is excluded from the average. This historical average is then modified by the GDP Deflator for Canada before being multiplied by the forecast number of new customers to determine the budget estimate. A similar process is followed for replacement services using historical actual expenditures to replace damaged or deteriorated service wires. 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. Service wire replacements help maintain a reliable high quality power supply to 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

$1,020,000

Nature of Project

This project is necessary to provide for the installation of new lighting fixtures, replacement of existing street light fixtures, and provision of associated overhead and underground wiring. A street light fixture includes the light head complete with bulb, photocell and starter as well as the pole mounting bracket and other hardware. The project is driven by customer requests and historical levels of lighting fixture failures requiring replacement.

The project cost is calculated on the basis of historical data. For new street lights, historical annual expenditures are adjusted for inflation and divided by the number of new customers in each year to derive an average cost per new customer. This historical average is then modified by the GDP Deflator for Canada before being multiplied by the forecast number of new customers to determine the budget estimate.

For replacement street lights, historical annual expenditures for replacement of damaged, deteriorated or failed street lights are adjusted for inflation and divided by the total number of customers served in each year to derive an average replacement street light cost per customer. This historical average is then modified by the GDP Deflator for Canada before being multiplied by the forecast of the total number of customers served to determine the budget estimate.

The projected expenditures for Street Lighting for 2002 are $657,000 for new street light services and $363,000 for replacement street light services.

Customer Impact

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

STREET LIGHTING (Cont'd)

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

$4,805,000

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 and 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 as follows:

a) Transformers for new customers are based on an historical ratio of transformers per new customer for each of the Company's operating areas. This ratio is multiplied by the forecast number of new customers.

b) Replacement transformers are based on field surveys of rusty or deteriorated transformers.

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 estimated on the basis of planned projects and historical data.

Total transformer requirements are met by new purchases and refurbishment of units removed from service. The Company expects to refurbish 340 units and purchase 2,760 new units in 2002 for a total of 3,100 units. Of this total, 1,490 units are projected for customer growth, 1,240 units to replace deteriorated transformers, and 370 units for upgrades and burnouts, etc.

Customer Impact

Transformers provide service to new customers, increase supply capacity for existing customers who increase their load, and replace units that deteriorate or fail.

TRANSFORMERS (Cont'd)

Project Justification

This project is required to provide and maintain service to customers.

The Company continues to experience significant corrosion problems with transformer tanks. This presents both potential service reliability and environmental issues for the Company. In response, the Company started to purchase stainless steel tanks in 2001 to address this problem on a go forward basis. This initiative has placed upward pressure on overall transformer expenditures as the stainless steel tanks are approximately 18% more expensive than the electrostatic tanks purchased previously. The Company expects this trend to continue for the next few years.

Transformers are purchased through a competitive tendering process.

Future Commitments

None.

RECONSTRUCTION

Project Cost

$2,156,000

Nature of Project

This project is necessary to provide for the replacement of deteriorated or storm damaged distribution structures and electrical equipment. This project is generally comprised of a number of smaller projects that are identified during line inspections or recognized following operational problems. By their nature these are high priority projects that normally cannot be deferred to the next budget year. This project differs from the Rebuild Distribution Lines project described at page 38 of 66, which involves rebuilding entire sections of trunk lines that are identified and planned in advance of budget preparation.

The project cost is estimated on the basis of average historical expenditures related to unplanned repairs to distribution feeders.

Customer Impact

These projects maintain the distribution system and improve reliability to customers. The reconstruction of existing distribution lines also provides for safer operation of the electrical system to protect the public and employees.

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.

ALIANT POLE PURCHASE

Project Cost

$8,088,000

Nature of Project

This project is necessary to cover the 2002 installment associated with the Support Structures Purchase Agreement entered into with Aliant Telecom Inc.

Customer Impact

This project will contribute to the Company's ongoing efforts to achieve operating efficiencies.

Project Justification

This project is necessary to comply with the terms of the Support Structures Purchase Agreement entered into by Newfoundland Power Inc. and Aliant Telecom Inc. covering the purchase of all joint-use poles within Newfoundland Power's service territory over a five year period.

Future Commitments

As per the terms of the Support Structures Purchase Agreement, the following amounts are required to complete the purchase of all joint-use poles within Newfoundland Power's service territory from Aliant Telecom Inc.

2003	$4,044,000
2004	$4,044,000
2005	$4,044,000

TRUNK FEEDERS
REBUILD DISTRIBUTION LINES

Project Cost

$2,940,000

Nature of Project

This project is necessary to provide for the replacement of deteriorated distribution structures and electrical equipment for entire sections of trunk lines that have been previously identified through ongoing line inspections. The total budget estimate for this category is based on individual project estimates.

This project is distinguished from the Reconstruction project described at page 37 of 66 in that these projects are larger, and are previously defined and estimated in advance of the budget process. Plans for these projects are developed from line inspection reports that assess the age, condition, maintenance costs, and overall integrity of the distribution line to provide for public and employee safety. Unlike the Distribution Reliability Initiative projects described at page 42 of 66, the selection of lines for rebuilding focuses more on the actual physical condition of the lines than on their historical reliability performance.

Distribution rebuild projects can involve either the complete rebuilding of deteriorated distribution lines or the selective replacement of various line components. These typically include pole replacement, crossarm replacement, conductor replacement including replacement of underground distribution equipment, and insulator replacement.

The following table lists the projects for 2002.

Project	**Cost (000s)**
Rebuild line to Fox Harbour/Ship Harbour	$350
Rebuild Kings Bridge (KBR-06) feeder	210
Rebuild Kings Bridge (KBR-11) feeder	103
Upgrade distribution clearances - Lewisporte and Norris Arm	100
Replace poles Noggins Cove/Fredrickton	90
Rebuild line to Gull Pond	70
Relocate section of Port-aux-Basques (PAB-03) feeder	70
Rebuild line to Newman's Cove	63
Rebuild line from Spillar's Cove to Elliston	62
Upgrade line to Botwood	60
Rebuild line from Hare Bay Substation to Hare Bay	56
Replace poles - Stephenville Area	50
Insulator replacements	742
Small projects < $50,000	914
Total	**$2,940**

TRUNK FEEDERS
REBUILD DISTRIBUTION LINES (Cont'd)

Customer Impact

This project is focused on rebuilding and maintaining distribution lines so as to replace lines and equipment before failures due to deterioration create power interruptions, safety hazards and increased operating costs associated with emergency repairs.

Project Justification

The Company has over 8,000 kilometres of distribution line in service and has an obligation to maintain this plant in good condition to safeguard the public and its employees. The replacement of deteriorated distribution structures and equipment is critical in preventing failures and maintaining reliable service to customers.

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

$270,000

Nature of Project

This project is necessary to accommodate third party requests for relocation of distribution lines. The relocation or replacement of distribution lines result from (1) work initiated by municipal, provincial and federal governments, (2) work initiated by other utilities such as Aliant Telecom and Rogers Cable, (3) requests from customers or (4) vehicle accident damage.

The cost estimate is based on historical expenditures and some individual project estimates. Generally these expenditures are associated with a number of small projects that are not specifically identified at the time the budget is prepared.

Work initiated by government is estimated to be $100,000 in 2002 and is primarily associated with road widening and road realignment. Aliant Telecom and Rogers Cable work, estimated at $40,000 in 2002, involves relocation or replacement of lines for additional conductor installations. Customer requests typically involve relocation of poles, anchors and guy wires from private property. The cost of such work is estimated to be $80,000 in 2002. The estimated cost for vehicle accident damage in 2002 is $50,000. The decrease in this budget category compared to the 2001 forecast of $577,000 is a reflection of a forecast reduction in work initiated by the Department of Works, Services and Transportation.

Customer Impact

There is no direct customer impact, except in the case of some vehicle accidents where electrical service will be restored.

Project Justification

The Company must respond to requests for relocation and replacement of distribution facilities under the provisions of agreements in place with the requesting parties.

Estimated contributions from customers and requesting parties associated with this project have been included in the $1.5 million contribution in aid of construction amount referred to in the Application.

TRUNK FEEDERS
RELOCATE/REPLACE DISTRIBUTION LINES FOR THIRD PARTIES (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.

TRUNK FEEDERS
DISTRIBUTION RELIABILITY INITIATIVE

Project Cost

$1,050,000

Nature of Project

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

These are special projects selected on the basis of reliability performance of the lines. Prioritizing these projects also requires consideration of the costs, the number of customers affected, and judgment as to the reliability improvement that can be expected as a result of the line upgrade project.

Customer Impact

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

Project Justification

These projects are justified on the basis of reliability improvement. Customers supplied by these feeders experience power interruptions significantly more often than the Company average. Individual feeder projects have been prioritized based on their historic SAIFI and SAIDI statistics.

Expenditures on the distribution reliability initiative have had a positive impact on the reliability performance of the feeders that have been upgraded.

TRUNK FEEDERS
DISTRIBUTION RELIABILITY INITIATIVE (Cont'd)

The following table identifies the feeder projects selected for upgrading in 2002 and indicates the estimated project cost, the number of customers affected, and the average yearly interruption statistics for the five-year period ending June 30, 2001. The SAIFI and SAIDI statistics exclude planned power interruptions and interruptions due to loss of supply from Hydro.

Feeder	Cost (000s)	Number of Customers	SAIFI[1] Interruptions Per Year	SAIDI[2] Hours Per Year
Victoria (VIC-02)	$350	1,187	3.4	4.3
Trepassey (TRP-01)	100	680	2.1	2.7
Glovertown (GLV-02)	300	1,221	3.9	8.4
Doyle's (DOY-01)	300	1,080	2.5	4.4
Company Average			**1.6**	**2.8**

Notes:

[1] 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.

[2] 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.

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/OPERATION

Project Cost

$328,000

Nature of Project

Distribution system protection involves the installation of equipment and devices that provide for improved operation of the electrical system when problems such as electrical faults, short circuits or lightning strikes occur. This project involves the installation of lightning arresters on transformers and other electrical equipment, the installation of fuses, and the installation of switches to improve sectionalizing of distribution lines.

For 2002, this category includes $83,000 for lightning arresters in Burin and Bonavista Areas, $125,000 for the installation of fuses or cutouts in St. John's and Corner Brook Areas, and $120,000 for switches in St. John's Area that will improve the Company's ability to transfer customers from one distribution feeder to another.

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 reduce 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 SWITCHES - WATER STREET, ST. JOHN'S

Project Cost

$362,000

Nature of Project

This project is necessary to replace one high voltage oil-filled switch and three banks of platform-mounted transformers that form part of the Water Street underground distribution system. The project will require the installation of two pad-mount switches and one pad-mount transformer as well as the establishment of a loop feed for the section of the underground distribution system at Baird's Cove.

Customer Impact

This project will improve the reliability of service to 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 type of 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 may occur. New switches have technology that eliminates these safety concerns. Until such time as the switches are replaced, large segments of the feeder must be de-energized prior to performing any switching operations.

The platform-mounted transformers are also 30 years old and are located close to the exterior walls of existing buildings, causing clearance issues for workers maintaining the exterior of the buildings.

The proposed new arrangement will eliminate the oil-filled switch and platform-mounted transformers and, with the establishment of the loop feed, will result in improved 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. However, there will be five switches of this type remaining in service following completion of this project. The Company plans to replace or remove all switches and is currently finalizing the engineering and acquiring the necessary property rights.

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 $1.0 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.

GENERAL PROPERTY

TOOLS AND EQUIPMENT

Project Cost

$347,000

Nature of Project

This project is necessary for 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.

The following table lists the projects for 2002:

Category	Cost (000s)
Line Tools and Equipment[1]	$287
Office Furniture and Equipment[2]	60
Total	**$347**

Notes:

[1] Line Tools and Equipment includes various tools and equipment used by line staff, electrical maintenance staff, and engineering and field technical staff. The tools and equipment include hydraulic tools, instruments, test gear, and inspection equipment.

[2] Office Furniture and Equipment includes the replacement of broken or deteriorated furniture and office equipment, as well as the purchase of additional filing and storage equipment.

The project cost is based on historical costs for the replacement of tools and equipment that become broken or worn out. Additional tools are purchased to increase employee productivity, quality of work and overall operational efficiency.

Customer Impact

The addition or replacement of these tools and equipment help employees work efficiently and produce higher quality work.

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

$323,000

Nature of Project

The project is necessary to maintain buildings and facilities and to operate them in an efficient manner. It involves the addition to, or renovation of, Company property.

The following table lists the projects for 2002:

Category	Cost (000s)
Additions[1]	$152
Renovations[2]	171
Total	**$323**

Notes

[1] Additions include a spill containment pad and a transformer storage ramp for the electrical maintenance facility on Topsail Road and the installation of a fire alarm system at the vehicle service centre at Duffy Place.

[2] Renovations includes replacement of the roof at the Duffy Place building and other service building improvements.

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

Customer Impact

Most of these projects have no direct customer impact. However, some are renovations to buildings and property frequented by customers.

Project Justification

Property renovations are required to ensure safe and efficient working areas for employees.

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 item is necessary 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 timely service restoration.

Project Justification

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

None.

TRANSPORTATION

PURCHASE OF VEHICLES AND AERIAL DEVICES

Project Cost

$2,200,000

Nature of Project

This project involves the necessary replacement of passenger vehicles and aerial devices (line trucks). The existing units have reached the end of their useful lives and are beyond economical repair.

The following table lists the projects for 2002:

Category	Cost (000s)	No. of Units
Passenger/Off-Road Vehicles [1]	$1,023	50
Heavy Fleet Vehicles [2]	1,177	8
Total	**$2,200**	**58**

[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 replacement line trucks.

Customer Impact

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

TELECOMMUNICATIONS

FIBRE OPTIC NETWORKING

Project Cost

$264,000

Nature of Project

This project is necessary to achieve increased power system reliability. It involves establishing fibre optic links to major substations in the St. John's area. The fibre links will be used for communications and power system protection schemes.

Customer Impact

This project contributes to improved customer service and safety by supporting relay protection systems, and assisting in the maintenance of power system reliability and hydroelectric generation availability.

Project Justification

This project is justified on the basis of power system reliability improvements. The fibre optic link to major substations supports faster fault clearing times thus minimizing fault impacts on the power 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.

REPLACE/UPGRADE COMMUNICATIONS EQUIPMENT

Project Cost

$136,000

Nature of Project

This project is necessary to upgrade or replace obsolete or deteriorated communications equipment.

The project involves:

a) The relocation of two repeater sites.

b) The replacement of mobile VHF radios.

c) Upgrading to VHF radio towers.

d) Performing ground potential rise calculations at four substations.

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

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 either replaced or upgraded 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.

COMMUNICATIONS FOR GAS TURBINE RELOCATION

Project Cost

$102,000

Nature of Project

This project is necessary to complete the telecommunication work associated with the relocation of a gas turbine from the Salt Pond Substation to the Wesleyville Substation. This project will provide for remote monitoring and control of the generating unit from the System Control Centre.

Customer Impact

This project will provide increased electrical system reliability to customers in the Bonavista North area by providing a backup source of energy during outages on the single radial transmission line serving the area.

Project Justification

The Bonavista North area is currently served by a single radial transmission line. This line has experienced higher than average annual SAIFI and SAIDI statistics for the past five years (an average of 3.59 outages and 9.06 hours respectively). The reliability statistics are impacted by the nature of the environment in this area and the fact that approximately 30% of the transmission line is remotely located making access to the line for repairs difficult and service restoration time longer. The Company has explored various options for improving the reliability of service to the area. These options include constructing a second transmission line to serve the area, installing a new source of generation, and relocating an existing generator. Of the three alternatives the least cost option is the relocation of an existing generator. The estimated cost of a second transmission line is approximately $7.0 million, while the cost of a new generator is estimated to be approximately $8.0 million.

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.

INFORMATION SYSTEMS

APPLICATION ENHANCEMENTS

Project Cost

$702,000

Nature of Project

This project is necessary to provide enhancements to a variety of computer applications.

The project involves:

a) Updating record keeping to support Range Rated Meters. These meters can be calibrated for installation on services of different voltage levels. The change involves tracking information about the type and size of the electrical service based on information recorded on the meter. This information is important to ensure the safety of employees who maintain electrical services ($65,000).

b) Enhancing the CSS to automate the process of final meter readings utilizing the new Handheld Meter Reading system and the CSS batch entry system ($51,000).

c) Reorganizing automated work queues in the CSS to present tasks in a more efficient order ($51,000).

d) The identification, design and implementation of small changes and upgrades to approximately 30 existing corporate applications to ensure regulatory requirements are met and productivity gains are realized ($535,000).

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 improvements in customer service and increased operational efficiencies.

APPLICATION ENHANCEMENTS (Cont'd)

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

Future Commitment

None.

APPLICATION ENVIRONMENT

Project Cost

$670,000

Nature of Project

This project is necessary for 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, Microsoft productivity tools, as well as related software licenses.

The project involves:

a) *Microsoft Enterprise Agreement ($250,000)*
The Microsoft Enterprise Agreement provides the Company with the right to use and upgrade Microsoft desktop products including Word, Excel, Access, PowerPoint and backoffice products such as SQL Server.

b) *Business Support Systems ($61,000)*
The Business Support System will require report writing, software development and security management tools, as well as consulting services to ensure their efficient use.

c) *Workflow Environment ($80,000)*
The Lotus Notes workflow environment is outdated and costly both to maintain and to integrate with other environments. Applications in this environment, which include the CIAC Application, will be re-written in a technology that can be supported and maintained by Newfoundland Power personnel. The existing Lotus Notes environment will be retired.

d) *Corporate Reporting Environment ($120,000)*
To avoid degradation of the on-line performance of the Customer Service System (CSS), a separate environment will be implemented for the creation and printing of reports.

e) *Application Software Upgrades ($67,000)*
The Application Software Upgrades are necessary to keep versions of the database management system software and application development software up-to-date in order to maintain vendor support.

f) *Environment Management ($92,000)*
Environment Management ensures that application tools, delivery methods and system environments are updated and maintained to reflect changing technology and business requirements. The project includes various software tool purchases and updates, as well as the associated internal labour.

APPLICATION ENVIRONMENT (Cont'd)

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 corporate applications continue to operate in a stable and reliable manner. A program for the proper maintenance of the application environment also ensures the environment has the flexibility to accommodate new requirements.

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

Future Commitment

None.

FACILITIES MANAGEMENT

Project Cost

$939,000

Nature of Project

The Company's facilities management application (known as MP2) tracks and schedules maintenance activities associated with the Company's distribution and substation electrical equipment. This two-year project involves expanding the application to cover additional applications, such as the street light management system, that currently run on the OpenVMS operating system. Together with process improvements and the training of personnel, the expansion of the MP2 application will provide the Company with more effective facilities management and preventative maintenance capabilities.

Customer Impact

Establishment of an effective facilities management capability will allow the Company to improve operating effectiveness, and enhance the Company's ability to respond to customers' service requirements.

Project Justification

An improved facilities management system will enable the effective management of facilities which are critical to providing reasonable levels of reliability, safety, environmental stewardship, operations efficiency and customer service.

This project will also result in the replacement of a number of systems currently running on the Company's aging, proprietary computer operating system, known as OpenVMS. Due to declining industry support for OpenVMS, the business risk associated with running software applications on the OpenVMS operating system is unacceptable to Newfoundland Power.

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

Future Commitments

Further expenditures of $270,000 are estimated for 2003.

OPERATIONS SUPPORT SYSTEMS

Project Cost

$1,322,000

Nature of Project

This is a two-year project involving the replacement of a large number of small computer applications used by the Company's operations and engineering personnel with a computer application that will support the planning, estimating, scheduling, assigning and tracking of work.

Customer Impact

Implementation of an integrated computer solution for managing work in the Company's engineering and operations groups will improve operating effectiveness and enhance the Company's ability to respond to customers' service requirements.

Project Justification

There is a significant opportunity to improve operating efficiency and customer service through enhanced work management in the operations and engineering areas of the Company. This core function is currently being supported by a variety of ad hoc solutions, requiring significant manual coordination and causing reduced productivity.

Replacement of the existing applications is also necessary because they run on the Company's aging, proprietary computer operating system, known as OpenVMS. Due to declining industry support for OpenVMS, the business risk associated with running software applications on the OpenVMS operating system is unacceptable to Newfoundland Power.

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

Future Commitments

Further expenditures of $636,000 are estimated for 2003.

BUSINESS SUPPORT SYSTEMS

Project Cost

$590,000

Nature of Project

This is a continuation of a project initiated in 2001. It is necessary for the replacement of the aging and functionally deficient major computer applications used to manage the Company's resources. The systems being replaced are the human resources, payroll, finance, and materials management applications.

Customer Impact

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

Project Justification

The Company's major corporate applications have growing functional shortcomings and are aging to the point where it is necessary to replace them. These applications lack the flexibility required to keep pace with changing business needs and the cost of maintaining their current functionality is increasing. Further, these applications run on an aging proprietary computer operating system, known as OpenVMS, for which vendor support is expected to decline in the near future.

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

Future Commitments

None.

HANDHELD METER READING SYSTEM

Project Cost

$619,000

Nature of Project

This project is necessary for the replacement of the existing Handheld Meter Reading System.

Customer Impact

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

Project Justification

The handheld meter reading system, which was acquired in 1991, will have reached the end of its useful life, with vendor support being discontinued by mid-2002.

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

Future Commitments

None.

PERSONAL COMPUTER INFRASTRUCTURE

Project Cost

$654,000

Nature of Project

This project is necessary for the replacement or upgrade of personal computers, printers and associated assets that have reached the end of their useful life. Of the Company's total of 565 personal computers, 137 desktop computers and 27 laptop computers will be replaced. This is in keeping with the Company's expectation of a three to four year life cycle for personal computers.

The Company annually reviews its computing requirements in detail as part of its capital budgeting process.

The project also involves the replacement of 6 laser printers, and the purchase of several scanners and other peripheral equipment.

The following table contains a projection of the number of personal computers in the Company.

Type	2000 Total	2001			2002		
		Added	Retired	Total	Added	Retired	Total
Desktop	473	57	59	471	137	137	471
Laptop	94	21	21	94	27	27	94
Total	**567**	**78**	**80**	**565**	**164**	**164**	**565**

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. The replacement of personal computer infrastructure and the reassignment of older, less powerful personal computers to users with lesser capacity requirements will extend the useful life of personal computers and reduce costs.

PERSONAL COMPUTER INFRASTRUCTURE (Cont'd)

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

Future Commitments

None.

SHARED SERVERS INFRASTRUCTURE

Project Cost

$689,000

Nature of Project

This project is necessary to maintain current performance standards on the Company's 69 servers and the network infrastructure, and to provide the additional infrastructure needed to accommodate the new Business Support System and operations and engineering applications. This involves the replacement and upgrade of routers, switches, disks, processors and memory, as well as security and monitoring software.

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 the need to maintain the performance standards of the Company's servers and network infrastructure. Some of the Company's major shared computers are used by as many as 400 employees at one time. Degradation of server and network performance can have a negative impact on employee productivity and on customer service. It could also endanger the integrity of stored corporate data.

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

Future Commitments

None.

INTERNET

Project Cost

$113,000

Nature of Project

The purpose of this project is to upgrade and enhance the Company's Internet site to improve navigation and performance, as well as provide additional information and functions to our customers. These improvements will include modifications to the front page, upgrades to obsolete software components to enhance graphic displays, and the provision of additional information to address customer expectations as identified in the Company's customer surveys.

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 on the basis of efficiencies to be gained by providing on-line information to customers.

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

Future Commitments

None.

Newfoundland Power Inc.
2002 Capital Budget
Estimate of Future Required Expenditures on
Projects Commenced in 2002
(000s)

Budget Class and Project	2002	2003	2004	2005
Distribution				
Aliant Pole Purchase	$8,088	$4,044	$4,044	$4,044
Information Systems				
Facilities Management	$939	$270		
Operations Support Systems	$1,322	$636		

Newfoundland Power Inc.
2002 Capital Budget
2001 Capital Budget Variances
(000s)

	Approved by Order Nos. P.U. 24 (2000-2001) P.U. 12 (2001-2002) and P.U. 17 (2001-2002)	Forecast	Variance
Energy Supply	$ 5,619	$ 5,678	$ 59
Substations	2,863	3,063	200
Transmission	2,419	2,560	141
Distribution	41,586	41,573	(13)
General Property	1,723	879	(844)
Transportation	1,866	2,036	170
Telecommunications	683	710	27
Information Systems	3,619	3,843	224
General Expenses Capital	2,650	2,650	-
Total	$ 63,028	$ 62,992	$ (36)

Newfoundland Power Inc.
2002 Capital Budget
Rate Base
(000s)

	Historical Data		Forecast	Forecast
	1999	2000	2001	2002
Plant Investment	$ 897,666	$ 921,557	$ 968,388	$ 1,006,316
Deduct:				
Accumulated Depreciation	380,287	390,408	411,374	431,733
Contributions in Aid of Construction	19,565	19,835	20,047	20,214
Deferred Income Taxes	-	68	-	-
Weather Normalization Reserve	(7,362)	(8,740)	(8,648)	(8,648)
	392,490	401,571	422,773	443,299
	505,176	519,986	545,615	563,017
Add - Contributions Country Homes	312	489	500	400
Balance - Current Year	505,488	520,475	546,115	563,417
Balance - Previous Year	489,644	505,488	520,475	546,115
Average	497,566	512,739 [1]	533,295	554,766
Cash Working Capital Allowance	4,447	4,493	4,524	4,540
Materials and Supplies	3,675	3,747	3,677	3,677
Average Rate Base at Year End	$ 505,688	$ 520,979	$ 541,496	$ 562,983

1. Reduced by $243 (50% of $487) to conform to reduction from rate base as ordered by Order No. P.U. 36 (1998-99).

Newfoundland Power Inc.
2002 Capital Budget
Invested Capital

	Forecast 2001		Forecast 2002	
	(000s)	%	(000s)	%
Common Equity	$ 261,035	44.24%	$ 269,242	42.95%
Debt	319,070	54.08%	347,738	55.47%
Preferred Equity	9,890	1.68%	9,890	1.58%
Total	$ 589,995	100.00%	$ 626,870	100.00%

Newfoundland Power Inc.
2002 Capital Budget
Calculation of Rate of Return on Rate Base

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.).

2000 (approved by Order No. P.U. 18 (1999-2000)):

$$\textbf{10.28\%} = \left[\frac{\$\ 568{,}517}{\$\ 512{,}693} \times 9.31\%\right] + \frac{\$\ 78 + \$\ 30 - \$\ 328}{\$512{,}693}$$

Forecast 2001 rate base and invested capital values as per 2001 capital budget application, and an allowed return on equity of 9.59%:

$$\textbf{10.30\%} = \left[\frac{\$\ 584{,}095}{\$\ 526{,}065} \times 9.31\%\right] + \frac{\$\ 78 + \$\ 30 - \$\ 328}{\$526{,}065}$$

Forecast 2002 rate base and invested capital values and an allowed return on equity of 9.59%:

$$\textbf{10.33\%} = \left[\frac{\$\ 626{,}870}{\$\ 562{,}983} \times 9.31\%\right] + \frac{\$\ 78 + \$\ 30 - \$\ 328}{\$562{,}983}$$