
Newfoundland & Labrador

BOARD OF COMMISSIONERS OF PUBLIC UTILITIES

IN THE MATTER OF THE
2008 CAPITAL BUDGET APPLICATION

FILED BY

NEWFOUNDLAND POWER INC.

**DECISION AND ORDER
OF THE BOARD**

ORDER No. P.U. 27(2007)

BEFORE:

**Robert Noseworthy
Chair and Chief Executive Officer**

**Darlene Whalen, P. Eng.
Vice-Chair**

P. U. 27(2007)

IN THE MATTER OF the *Public Utilities Act*, RSNL 1990, c. P-47 (the “*Act*”);

and

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

- (a) approving its 2008 Capital Budget of \$50,754,000;
and
- (b) fixing and determining its average rate base for 2006 in the amount of \$752,917,000.

BEFORE:

Robert Noseworthy
Chair and Chief Executive Officer

Darlene Whalen
Vice-Chair

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1 **I BACKGROUND**

2
3 **1. Current Industry Structure**

4
5
6 Electrical services in the Province of Newfoundland and Labrador are provided by two utilities:
7 Newfoundland and Labrador Hydro Corporation (Hydro), which is a Crown Corporation; and
8 Newfoundland Power Inc. (NP), an investor owned subsidiary of Fortis Inc. Hydro is principally
9 responsible for generation and transmission in the Province, with a relatively small amount of
10 distribution in rural areas. NP operates on the Island portion of the Province and is primarily a
11 distribution utility with some generating capacity.

12
13 Together, Hydro and NP generate, transmit and distribute electricity to approximately 264,871
14 domestic and general service customers. NP's operations on the Island service 229,500
15 customers or 86.6% of all general service and domestic customers. Hydro serves the remaining
16 13.4% or 35,371 customers on the Island and in Labrador, as well as five regulated industrial
17 customers and two non-regulated industrial customers.

18
19
20 **2. The Application**

21
22 In accordance with the provisions of the *Act*, NP filed its 2008 capital budget application (the
23 "Application") with the Board of Commissioners of Public Utilities (the "Board") on June 29,
24 2007. In the Application NP requests that the Board make an Order:

- 25
26 (i) approving its 2008 Capital Budget of \$50,754,000;
27 (ii) approving 2008 leases in the amount of \$70,000 per year; and
28 (iii) fixing and determining its average rate base for 2006 in the amount of
29 \$752,917,000.

30
31 The Application, in accordance with historical practice, Board guidelines and relevant
32 legislation, includes a detailed explanation of each proposed expenditure setting out a
33 description, justification, projected expenditures, costing methodology and future commitments,
34 if applicable. Additional studies and reports, including detailed engineering reports, are provided
35 in relation to a number of projects.

36
37 **3. Board Authority**

- 38
39 i) Legislation

40
41 Section 41(1) of the *Act* requires a public utility to submit an annual capital budget of proposed
42 improvements or additions to its property to the Board for approval no later than December 15th
43 in each year for the next calendar year. In addition, the utility is also required to include an
44 estimate of contributions toward the cost of improvements or additions to its property, which the
45 utility intends to demand from its customers.

1 Section 41(3) prohibits a utility from proceeding without the prior approval of the Board with the
2 construction, purchase or lease of improvements or additions to its property where (a) the cost of
3 the construction or purchase is in excess of \$50,000; or (b) the cost of the lease is in excess of
4 \$5,000 in a year of the lease.

5
6 Section 78 gives the Board the authority to fix and determine the rate base for the service
7 provided or supplied to the public by the utility and also gives the Board the power to revise the
8 rate base. Section 78 also provides the Board with guidance on the elements that may be
9 included in the rate base.

10
11 Board procedures and process are established by regulation, guidelines or rules of procedure
12 established in accordance with this legislation. Capital Budget Guidelines applicable to this
13 Application were established provisionally by the Board in June of 2005.

14
15 ii) Process

16
17 On July 7, 2007 Notice of the Application was published in newspapers in the Province inviting
18 participation in the review of the Application or Letters of Comment. Details of the Application
19 and supporting documentation were posted on the Board's website. No Notices of Intention to
20 Participate or Letters of Comment were received by the Board. No Requests for Information
21 were issued.

22
23 Grant Thornton, the Board's financial consultants, were retained to review the calculations of the
24 2006 actual average rate base and the calculations of the 2007 and 2008 forecast deferred
25 charges. Grant Thornton filed a report on August 16, 2007 which was copied to NP.

1 **II PROPOSED 2008 CAPITAL BUDGET**

2
3
4 NP's proposed total capital budget for 2008 is \$50,754,000. The proposed expenditures by asset
5 class are as follows:
6
7

<u>Asset Class</u>	<u>Budget (000s)</u>
Generation–Hydro	\$ 3,385
Generation-Thermal	100
Substations	5,276
Transmission	4,890
Distribution	26,636
General Property	977
Transportation	2,214
Telecommunications	224
Information Systems	3,502
Unforeseen Allowance	750
General Expenses Capital	<u>2,800</u>
Total	<u>\$ 50,754</u>

8
9 NP has provided detailed information supporting the proposed expenditures. The supporting
10 information for each of the projects is comprehensive and consistent with the level of
11 information filed in recent capital budget applications and in accordance with the Board's
12 Guidelines. The Board notes that the proposed expenditures in relation to each of the asset
13 classes are in line with the levels proposed and approved by the Board in recent capital budgets.
14 The Board is satisfied that NP's proposed capital projects and associated expenditures for 2008
15 are necessary to provide safe and reliable service as required by the *Act*.
16

17 The Board notes that the proposed 2008 capital budget is significantly lower than the amount
18 approved for 2007 by the Board in Order No. P.U. 30(2006) of \$62,166,000 and is consistent
19 with recent historic capital expenditure levels prior to 2007. The higher 2007 capital budget
20 expenditure included the cost of a major refurbishment of NP's Rattling Brook hydroelectric
21 generating plant in the amount of \$18,820,000. There are no such extraordinary capital
22 expenditures proposed in the 2008 Capital Budget.
23

24 The Board has reviewed the extensive documentation and evidence presented by NP in support
25 of the Application and finds that the proposed capital purchases and construction projects in
26 excess of \$50,000 are necessary for NP to provide service and facilities which are reasonably
27 safe and adequate and just and reasonable as required pursuant to s. 37 of the *Act* and should be
28 approved. The Board also finds that the proposed total capital budget for 2008 is prudent and
29 reasonable and will, therefore, approve NP's 2008 Capital Budget in the amount of \$50,754,000.
30

1
2 **III. 2006 AVERAGE RATE BASE**
3

4 The following table, taken from Schedule E of the Application, shows the calculation of the
5 actual average rate base for 2006 compared with 2005:
6

	(\$000s)	
	<u>2005</u>	<u>2006</u>
Plant Investment	\$1,148,621	\$1,186,614
<u>Deduct:</u>		
Accumulated Depreciation	476,937	494,851
Contributions in Aid of Construction	21,192	23,142
Future Income Taxes	1,375	-
Weather Normalization Reserve	(10,100)	(11,808)
Purchase Power Unit Cost Variance Reserve	-	1,342
	<u>489,404</u>	<u>507,527</u>
	659,217	679,087
Add Contributions- Country Homes	580	1,001
Balance – Current Year	659,797	680,088
Balance – Previous Year	639,297	659,797
Average	649,547	669,943
Cash Working Capital Allowance	5,514	5,522
Materials and Supplies	4,322	4,510
Average Deferred Charges	86,063	94,338
Average Unrecognized 2005 Unbilled Revenue	-	(21,396)
Average Rate Base at Year End	<u>\$ 745,446</u>	<u>\$ 752,917</u>

7
8 The actual average rate base for 2006 has increased from 2005 primarily due to an increase in net
9 plant investment of \$20,079,000 resulting from additions during the year, as well as an increase
10 in average deferred charges of \$8,275,000. These increases were partially offset by the reduction
11 in the average rate base for the unrecognized 2005 unbilled revenue balance of \$21,396,000 as
12 required under Order No. P.U. 40(2005), as well as the net transfer to the Purchased Power Unit
13 Cost Variance Reserve of \$1,342,000 as required under Order No. P.U. 44(2004).
14

15 Grant Thornton, in its August 16, 2007 report, reviewed the calculation of the actual average rate
16 base for 2006 as set out in Schedule E of the Application and concluded that the calculation is
17 accurate and in accordance with previous Board Orders.
18

19 Forecast Deferred Charges for 2007 and 2008
20

21 In compliance with Order No. P.U. 19(2003) NP filed evidence relating to its forecast deferred
22 charges, including pension costs, to be included in the calculation of the forecast average rate
23 base for 2007 and 2008.

1 The forecast deferred charges for 2007 and 2008 as presented by NP are as follows:

2

	(\$000s)			
	Forecast 2006	Actual 2006	Forecast 2007	Forecast 2008
Deferred Pension Cost	\$ 90,333	\$ 90,122	\$ 96,656	\$ 99,764
Weather Normalization Account	\$ 8,998	11,808	\$ 10,683	\$ 10,683
Unamortized Debt Discount & Issue Expense	\$ 3,035	3,035	3,433	3,245
Unamortized Capital Stock Issue Expense	\$ 199	199	137	75
Deferred Retiring Allowances	\$ 134	133	-	-
Deferred Credit Facility Issue Costs	\$ 116	117	58	-
Deferred Depreciation Expenses	\$ 5,793	5,793	11,586	11,586
Deferred Replacement Energy Cost	-	-	1,147	1,147
Total Deferred Charges	\$ 108,608	\$ 111,207	\$ 123,700	\$ 126,500

3

Source: NP 2008 Capital Budget Application,

4

Report on Deferred Charges and Rate Base – Table 1

5

6 The total deferred charges as at December 31, 2006 were \$2,599,000 higher than forecast in the
7 2007 capital budget application. According to NP this increase is primarily due to an increase in
8 the Weather Normalization Account of \$2,810,000. The 2006 forecast for the Weather
9 Normalization Account included actual stream-flows and weather patterns to the end of January
10 2006 and assumed normal stream-flows and weather patterns for the remainder of 2006. Grant
11 Thornton in its August 16, 2007 report confirmed that the balance in this account agrees with the
12 information submitted to the Board in Return 14 of NP's 2006 annual report and approved by the
13 Board in Order No. P.U. 12(2007). The increase in the Weather Normalization Account was
14 partially offset by a decrease of \$211,000 in deferred pension costs. Grant Thornton confirmed
15 that the 2006 balance for the remaining deferred charges agrees with the information submitted
16 to the Board in Return 8 of NP's annual report.

17

18 The increase in forecast deferred charges for 2007 over 2006 is primarily due to an increase in
19 deferred pension costs (\$6,534,000) and higher deferred depreciation and replacement energy
20 costs (\$6,940,000).

21

22 The increase in deferred pension costs is the result of pension funding exceeding the pension
23 expense as determined in accordance with the recommendations of the Canadian Institute of
24 Chartered Accountants (CICA). Grant Thornton reviewed the calculations related to the deferred
25 pension cost and confirmed that no discrepancies were noted and that the information filed is
26 consistent with prior years and is calculated in accordance with recommendations of the CICA
27 and relevant Board Orders.

28

29 The deferral of depreciation expense relates to the increase in depreciation expense arising from
30 the conclusion of the amortization period for the 2003 depreciation reserve variance. As
31 approved in Order Nos. P.U. 40(2005) and P.U. 39(2006) these costs are being deferred pending

1 the next general rate application when recovery of these costs will be determined by the Board.
2 The deferral of replacement energy costs in the amount of \$1,147,000 (after tax costs) is
3 associated with the refurbishment of the Rattling Brook Hydroelectric Plant and was approved
4 by the Board in Order No. P.U. 39(2006).

5
6 The forecast deferred charges for 2008 do not include adjustments which may result from NP's
7 proposals with respect to deferred charges in its 2008 general rate application which is currently
8 before the Board.

9
10 Grant Thornton reviewed NP's calculations for deferred charges and, where appropriate, agreed
11 the calculations to supporting documentation. No issues were identified with respect to the
12 actual or forecast deferred charges as set out by NP in its application and the Board is satisfied
13 that the amount as proposed by NP for deferred charges is appropriately included in the
14 calculation of the forecast average rate base for 2007 and 2008. Pursuant to Section 78 of the
15 *Act*, the Board will approve all of the components of and NP's average rate base for 2006 in the
16 amount of \$752,917,000.

1 **IV ORDER**

2
3 **IT IS THEREFORE ORDERED THAT:**

- 4
- 5 **1. Pursuant to Section 41 of the *Act*, NP's capital purchases and construction projects**
6 **in excess of \$50,000, as set out in Schedule A to this Order, are approved.**
7
- 8 **2. Pursuant to Section 41 of the *Act*, the 2008 Capital Budget for improvement and**
9 **additions to NP's property in an amount of \$ 50,754,000 is approved.**
10
- 11 **3. Pursuant to Section 78 of the *Act*, the rate base for the year ending December 31,**
12 **2006 is hereby fixed and determined at \$ 752,917,000.**
13
- 14 **4. Unless otherwise directed by the Board, NP shall file an annual report to the Board**
15 **on its 2008 capital expenditures by March 1, 2009.**
- 16 **5. Unless otherwise directed by the Board, NP shall provide in conjunction with the**
17 **2009 Capital Budget Application, a status report on the 2008 capital budget**
18 **expenditures showing for each project:**
19
- 20 **(i) the approved budget for 2008;**
21 **(ii) the expenditures prior to 2008;**
22 **(iii) the 2008 expenditures to the date of the application;**
23 **(iv) the remaining projected expenditures for 2008;**
24 **(v) the variance between the projected total expenditures and the approved**
25 **budget; and**
26 **(vi) an explanation of the variance.**
27
- 28 **6. NP shall pay all costs and expenses of the Board incurred in connection with the**
29 **Application.**

Dated at St. John's, Newfoundland and Labrador this 19th day of September 2007.

Robert Noseworthy
Chair and Chief Executive Officer

Darlene Whalen, P.Eng.
Vice-Chair

G. Cheryl Blundon,
Board Secretary.

SCHEDULE A

ORDER NO. P. U. 27(2007)

ISSUED: SEPTEMBER 19, 2007

NEWFOUNDLAND POWER INC.

2008 CAPITAL BUDGET APPLICATION

GENERATION - HYDRO

Project Title: Facility Rehabilitation (Pooled)

Project Cost: \$3,260,000

Project Description

This Generation project is necessary for the replacement or rehabilitation of deteriorated plant components that have been identified through routine inspections, operating experience and engineering studies. The project includes expenditures necessary to improve the efficiency and reliability of various hydro plants or to replace plant due to in-service failures. The project includes work on the following:

- Hydro dams;
- Replacements due to in-service failures;
- Mobile wicket gates and bushings;
- Pierre's Brook governor controls;
- Heart's Content runner and wicket gates;
- Cape Broyle protection and control systems; and
- Engineering for Rocky Pond penstock replacement.

Details on 2008 proposed expenditures are included in *1.1 2008 Facility Rehabilitation*.

The replacement or rehabilitation of deteriorated components at individual plants is not inter-dependent or related. However, all budget items included in this project are similar in nature and justification, and are therefore pooled for consideration as a single capital project.

Justification

The Company's 23 hydroelectric plants range in age from eight years old to 107 years old. These facilities provide energy to the Island interconnected electrical system. Maintaining these generating facilities reduces the need for additional, more expensive, generation. In many cases, these generating facilities provide local generation.

Replacement and rehabilitation projects are identified during ongoing inspections and maintenance activities. These projects are necessary for the continued operation of generation facilities in a safe, reliable and environmentally compliant manner.

The Company's hydro generation facilities produce a combined normal annual production of 419.6 GWh. The alternative to maintaining these facilities would be to retire them. Replacing the energy produced by these facilities by increasing production at Newfoundland and Labrador Hydro's Holyrood generation facility would require approximately 670,000 barrels of fuel annually. At oil prices of \$55.40 per barrel, this translates into approximately \$37 million in annual fuel savings.

All expenditures on individual hydroelectric plants, such as the replacement of dam structures, runners, or forebays, are justified on the basis of maintaining access to hydroelectric generation at a cost that is lower than the cost of replacement energy.

Projected Expenditures

Table 1 provides a breakdown of the proposed expenditures for 2008 and a projection of expenditures through 2012.

Table 1				
Project Expenditures				
(000s)				
Cost Category	2008	2009	2010 - 2012	Total
Material	\$ 2,428	-	-	-
Labour – Internal	315	-	-	-
Labour – Contract	-	-	-	-
Engineering	440	-	-	-
Other	77	-	-	-
Total	\$ 3,260	\$2,410	\$7,818	\$12,913

Costing Methodology

Table 2 shows the annual expenditures for this project for the most recent five-year period.

Table 2					
Expenditure History					
(000s)					
Year	2003	2004	2005	2006	2007F
Total	\$2,510	\$1,909	\$2,283	\$1,234	\$946

The budget estimate for this project is comprised of engineering estimates for the individual budget items and an assessment of historical expenditures for the remainder.

To ensure this project is completed at the lowest possible cost consistent with safe and reliable service, all material and contract labour will be obtained through competitive tendering.

Future Commitments

This is not a multi-year project.

Project Title: Engineering to Increase Hydro Plant Production (Other)

Project Cost: \$125,000

Project Description

Newfoundland Power operates 23 hydroelectric plants in 19 developments across the province. The annual normal production of these developments is 419.6 GWh which is less than 10% of Newfoundland Power customers' electricity requirements. The remainder of the required electricity is purchased from Newfoundland and Labrador Hydro ("Hydro"). A significant portion of the electricity purchased from Hydro is generated at the Holyrood thermal generating plant which utilizes Bunker C oil. Bunker C oil is a more costly source of electricity than that generated at hydroelectric plants.

Prior to the Island interconnected electrical system, the majority of the 23 hydroelectric plants were operated as small isolated systems across the province. When constructed, these plants were the only source of generation for local systems. The plants were designed for year round operation with maximum utilization of available water resources. Today, the hydroelectric plants are connected to the Island interconnected electrical system and are operated to their maximum efficiency, providing low cost electricity to the entire electrical system.

Due to the high cost of producing electricity at Holyrood, Newfoundland Power is looking at alternative ways to improve the efficiency and energy production of existing hydroelectric plants. There is potential to increase the annual production of existing hydroelectric plants by modifying existing dams, penstocks and turbines. For example, the Rattling Brook refurbishment project approved with the 2007 Capital Budget Application will provide an additional 6.2 GWhs of energy annually by increasing the diameter of the penstock and replacement of the butterfly valves.

This project will (1) produce a project inventory including economic analysis using the current cost of energy, and (2) optimize and provide final engineering design for the most feasible projects with the potential to increase energy production at existing Newfoundland Power hydroelectric plants. The objective of the project is to produce more energy from the existing hydro plants, thereby reducing the need for more expensive thermal generation.

Justification

The Company’s 23 hydroelectric plants provide energy to the Island interconnected electrical system. Operating these generating facilities efficiently reduces the need for additional, more expensive, generation.

The Company’s hydroelectric plants produce a combined normal annual production of 419.6 GWh. Increasing energy production at Newfoundland Power’s existing hydroelectric plants would replace energy produced at Hydro’s Holyrood thermal generating plant. At oil prices of approximately \$55.40 per barrel, an additional gigawatt hour of hydroelectric production translates into approximately \$88,000 in fuel savings. This project is justified upon those future energy savings.

Projected Expenditures

Table 1 provides a breakdown of the proposed expenditures for 2008 and a projection of expenditures through 2012.

Table 1				
Project Expenditures				
(000s)				
Cost Category	2008	2009	2010 - 2012	Total
Material	-	-	-	-
Labour – Internal	25	-	-	-
Labour – Contract	-	-	-	-
Engineering	-	-	-	-
Other	100	-	-	-
Total	\$ 125	-	-	\$125

Costing Methodology

The budget estimate for this project is comprised of an engineering estimate.

Future Commitments

This is not a multi-year project.

GENERATION - THERMAL

Project Title: Facility Rehabilitation Thermal (Pooled)

Project Cost: \$100,000

Project Description

This Generation Thermal project is necessary for the replacement or rehabilitation of deteriorated thermal plant components that have been identified through routine inspections, operating experience and engineering studies.

The replacement or rehabilitation of deteriorated components at individual plants is not inter-dependent or related. However, all budget items included in this project are similar in nature and justification, and are therefore pooled for consideration as a single capital project.

Justification

The Company maintains 43.5 MW of thermal generation consisting of gas turbine and diesel units. These units are generally used to provide emergency generation, both locally and for the interconnected system, and to facilitate scheduled maintenance.

Replacement and rehabilitation projects are identified during ongoing inspections and maintenance activities. These projects are necessary for the continued operation of thermal generation facilities in a safe, reliable and environmentally compliant manner.

Projected Expenditures

Table 1 provides a breakdown of the proposed expenditures for 2008 and a projection of expenditures through 2012.

Table 1				
Project Expenditures				
(000s)				
Cost Category	2008	2009	2010 - 2012	Total
Material	\$ 60	-	-	-
Labour – Internal	20	-	-	-
Labour – Contract	-	-	-	-
Engineering	15	-	-	-
Other	5	-	-	-
Total	\$ 100	\$350	\$425	\$875

Costing Methodology

Table 2 shows the annual expenditures for this project for the most recent five-year period.

Table 2					
Expenditure History					
(000s)					
Year	2003	2004	2005	2006	2007F
Total	\$93	\$142	\$135	\$0	\$0

The budget estimate for this project is comprised of engineering estimates for the individual budget items and an assessment of historical expenditures for the remainder.

To ensure this project is completed at the lowest possible cost consistent with safe and reliable service, all material and contract labour will be obtained through competitive tendering.

Future Commitments

This is not a multi-year project.

SUBSTATIONS

Project Title: Substations Refurbishment and Modernization (Pooled)

Project Cost: \$3,703,000

Project Description

This Substations Refurbishment and Modernization project is a continuation of work started in 2007 as a result of the Substation Strategic Plan. The work included in this project is consistent with this plan. An update to the Substation Strategic Plan is included in *2.1 Substation Refurbishment and Modernization*.

This project is necessary for the planned replacement of deteriorated and substandard substation infrastructure, such as bus structures, breakers, potential transformers, protective relaying and support structures, equipment foundations, switches and fencing.

The individual requirements for the replacement of substation infrastructure are not inter-dependent. However, they are similar in nature and justification. The expenditures are therefore pooled for consideration as a single capital project.

Justification

This project is justified based on the need to maintain safe, reliable electrical service and ensure workplace safety by replacing deteriorated or substandard substation infrastructure.

Projected Expenditures

Table 1 provides a breakdown of the proposed expenditures for 2008 and a projection of expenditures through 2012.

Table 1				
Project Expenditures				
(000s)				
Cost Category	2008	2009	2010 – 2012	Total
Material	\$ 1,916	-	-	-
Labour – Internal	732	-	-	-
Labour – Contract	-	-	-	-
Engineering	753	-	-	-
Other	302	-	-	-
Total	\$ 3,703	\$3,680	\$14,047	\$21,430

Costing Methodology

Table 2 shows the annual expenditures and unit costs for this project for the most recent five-year period.

Table 2					
Expenditure History					
(000s)					
Year	2003	2004	2005	2006	2007F
Total	\$2,088	\$2,168	\$2,072	\$2,107	\$2,190

The Company has 130 substations varying in age from six years to greater than 100 years. Infrastructure to be replaced was identified as a result of inspections, engineering studies and operating experience.

The budget for this project is comprised of engineering estimates for the cost of individual budget items.

To ensure this project is completed at the lowest possible cost consistent with safe and reliable service, all material and contract labour will be obtained through competitive tendering.

Future Commitments

This is not a multi-year project.

Project Title: Replacements Due to In-Service Failures (Pooled)

Project Cost: \$1,340,000

Project Description

This Substations project is necessary to replace substation equipment that is retired due to vandalism, storm damage, lightning strikes, electrical or mechanical failure, corrosion damage, technical obsolescence and failure during maintenance testing. Substation equipment that fails in-service requires immediate attention as it is essential to the integrity and reliability of the electrical supply to customers.

Table 1 shows the required replacement equipment for 2008.

Table 1 2008 Replacement Equipment	
Description	Quantity
Battery banks	9
Battery chargers	9
Potential transformers	9
Current transformers	3
Combination CT/PT unit	3
Reclosers	2
Voltage regulators	9
VR Control panels	10
Breakers	1
Switches	6
Fuse Disconnects	6

The individual requirements for substation equipment are not inter-dependent. However, they are similar in nature and justification. The expenditures are therefore pooled for consideration as a single capital project.

Justification

This project is justified based on the need to maintain safe, reliable electrical service and ensure workplace safety by replacing deteriorated or substandard substation plant and equipment.

Projected Expenditures

Table 2 provides a breakdown of the proposed expenditures for 2008 and a projection of expenditures through 2012.

Table 2				
Project Expenditures				
(000s)				
Cost Category	2008	2009	2010 - 2012	Total
Material	\$ 834	-	-	-
Labour – Internal	314	-	-	-
Labour – Contract	14	-	-	-
Engineering	109	-	-	-
Other	69	-	-	-
Total	\$1,340	\$1,370	\$4,281	\$6,991

Costing Methodology

Table 3 shows the annual expenditures for this project for the most recent five-year period.

Table 3					
Expenditure History					
(000s)					
Year	2003	2004	2005	2006	2007F
Total	\$1,159	\$1,284	\$1,194	\$1,273	\$1,550

The Company has 130 substations. The major equipment items comprising a substation include power transformers, circuit breakers, reclosers, voltage regulators, potential transformers and battery banks. In total, Newfoundland Power has in service approximately 190 power transformers, 400 circuit breakers, 200 reclosers, 360 voltage regulators, 220 potential transformers, 115 battery banks and 2,500 high voltage switches.

The need to replace equipment is determined on the basis of tests, inspections, in-service and imminent failures and operational history of the equipment. An adequate pool of spare equipment is necessary to enable the Company to quickly respond to in-service failure. The size of the pool 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.

The budget for this project is based on engineering cost estimates and an assessment of historical expenditures.

To ensure this project is completed at the lowest possible cost consistent with safe and reliable service, all material and contract labour will be obtained through competitive tendering.

Future Commitments

This is not a multi-year project.

Project Title: Convert 403L to 66KV to Reduce Losses (Other)

Project Cost: \$233,000

Project Description

This Substation project is proposed to improve the energy efficiency of transmission line 403L between Lookout Brook plant and St. George’s and Robinson’s substations. Increasing the transmission line voltage from 33,000 volts to 66,000 volts will reduce line losses, thereby making more of the energy produced at the Lookout Brook plant available to the Island interconnected system.

Engineering details of this project are included in report *2.2 Convert 403L to 66KV*.

Justification

The project is justified on the energy savings as shown in the economic analysis included with the report *2.2 Convert 403L to 66KV*. The project will provide an additional 529,870 kWh of energy to the system at a levelized unit cost of 3.81¢/kWh.

Projected Expenditures

Table 1 provides a breakdown of the proposed expenditures for 2008. There are no expenditures expected after 2008.

Table 1				
Project Expenditures				
(000s)				
Cost Category	2008	2009	2010 - 2012	Total
Material	\$ 85	-	-	-
Labour – Internal	73	-	-	-
Labour – Contract	-	-	-	-
Engineering	41	-	-	-
Other	34	-	-	-
Total	\$ 233	-	-	\$233

Costing Methodology

The budget for this project is based on engineering cost estimates.

To ensure this project is completed at the lowest possible cost consistent with safe and reliable service, all material and contract labour will be obtained through competitive tendering.

Future Commitments

This is not a multi-year project.

TRANSMISSION

Project Title: Transmission Line Rebuild (Pooled)

Project Cost: \$4,890,000

Project Description

This Transmission project involves:

1. The rebuilding of the Company's oldest, most deteriorated transmission lines on a priority basis in accordance with the program outlined in the report *Transmission Line Rebuild Strategy* filed with the 2006 Capital Budget Application (\$3,045,000).

Proposed transmission line rebuilding work will take place on sections of 20L and 111L. Details of the rebuilds can be found in **3.1 Transmission Line Rebuild**.

2. The replacement of poles, crossarms, conductors, insulators and miscellaneous hardware due to deficiencies identified during inspections and engineering reviews or due to in-service and imminent failures (\$1,595,000).
3. Work associated with the relocation of transmission lines at the request of third parties (\$250,000).

Justification

Thirty per cent of the Company's 104 transmission lines are in excess of 40 years of age. Many of these lines are experiencing pole, crossarm, conductor, insulator and hardware deterioration. Replacement is required to maintain the strength and integrity of these lines.

This project is justified based on the need to replace deteriorated infrastructure in order to ensure the continued provision of safe, reliable electrical service.

The portion of this project related to relocations at the request of third parties is justified based on the need to accommodate the legitimate requirements of governments, other utility service providers and the public.

Projected Expenditures

Table 1 provides a breakdown of the proposed expenditures for 2008 and a projection of expenditures through 2012. Appendix A of *3.1 Transmission Line Rebuild* details the transmission line rebuilds planned for each year.

Table 1				
Project Expenditures				
(000s)				
Cost Category	2008	2009	2010 - 2012	Total
Material	\$ 1,650	-	-	-
Labour – Internal	509	-	-	-
Labour – Contract	1,999	-	-	-
Engineering	219	-	-	-
Other	513	-	-	-
Total	\$ 4,890	\$6,216	\$20,528	\$31,634

Costing Methodology

Table 2 shows the annual expenditures for this project for the most recent five-year period. Annual expenditures are a function of the number of lines rebuilt, distance covered and the construction standard used in the design.

Table 2					
Expenditure History					
(000s)					
Year	2003	2004	2005	2006	2007F
Total	\$4,026	\$2,061	\$2,651	\$4,456	\$4,283

The budget estimates for rebuilding and upgrade projects are based on engineering cost estimates. The budget estimates for replacements and relocation projects are based on an assessment of historical expenditures.

To ensure this project is completed at the lowest possible cost consistent with safe and reliable service, all material and contract labour will be obtained through competitive tendering.

Future Commitments

This is not a multi-year project.

DISTRIBUTION

Project Title: Extensions (Pooled)

Project Cost: \$7,791,000

Project Description

This Distribution project involves the construction of both primary and secondary distribution 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 includes labour, materials, and other costs to install poles, wires and related hardware.

Distribution line extensions and upgrades for new customers and for increased loads are similar in nature and justification. The expenditures are therefore pooled for consideration as a single capital project.

Justification

This project is justified based on the need to address customers' new or additional service requirements.

Projected Expenditures

Table 1 provides a breakdown of the proposed expenditures for 2008 and a projection of expenditures through 2012.

Table 1				
Project Expenditures				
(000s)				
Cost Category	2008	2009	2010 - 2012	Total
Material	\$2,514	-	-	-
Labour – Internal	1,863	-	-	-
Labour – Contract	2,411	-	-	-
Engineering	799	-	-	-
Other	204	-	-	-
Total	\$7,791	\$8,014	\$24,672	\$40,477

Costing Methodology

Table 2 shows the annual expenditures and unit costs for this project for the most recent five-year period, as well as a projected unit cost for 2008.

Table 2						
Expenditure History and Unit Cost Projection						
Year	2003	2004	2005	2006	2007F	2008B
Total Exp. (000s)	\$ 6,586	\$ 8,406	\$ 7,962	\$11,136	\$ 7,931	\$ 7,791
Adjusted Cost (000s) ¹	\$ 7,421	\$ 9,144	\$ 8,412	\$ 8,185 ²	7,036 ²	-
New Customers	3,833	4,294	4,149	3,496 ³	3,307 ³	3,453
Unit Cost (\$/customer) ¹	\$ 1,936	\$ 2,129	\$ 2,027	\$ 2,341	\$ 2,128	\$ 2,256

¹ 2007 Dollars.

² Excludes expenditure for extensions to cottage areas.

³ Excludes customer connections in cottage areas.

The project cost for the connection of new customers is calculated on the basis of historical data. Historical annual expenditures over the most recent five-year period, including the current year, expressed in current-year dollars (“Adjusted Cost”) are divided by the number of new customers in each year to derive the annual extension cost per customer in current-year dollars (“Unit Cost”). The average of these unit costs, with unusually high and low data excluded, is modified by the GDP Deflator for Canada before being multiplied by the forecast number of new customers for the budget year to determine the budget estimate. The forecast number of new customers is derived from economic projections provided by independent agencies.

To ensure this project is completed at the lowest possible cost consistent with safe and reliable service, all material and contract labour will be obtained through competitive tendering.

Future Commitments

This is not a multi-year project.

Project Title: Meters (Pooled)

Project Cost: \$986,000

Project Description

This Distribution project includes the purchase and installation of meters for new customers and replacement meters for existing customers. Table 1 lists the meters required in 2008.

Table 1	
2008 Proposed Meter Acquisition	
Program	Number of Meters
Energy Only Domestic Meters	8,868
Other Energy Only and Demand Meters	1,097

The expenditures for individual meters are not interdependent. However, because the individual expenditure items are similar in nature and justification, they have been pooled for consideration as a single capital project.

No expenditure has been explicitly budgeted for the installation of automated meter reading (“AMR”) technology. However, AMR meters will be installed where it is determined that the higher cost is justified by the savings provided in the *Metering Strategy* filed with the 2006 Capital Budget Application.

Justification

The purchase of new meters is necessary to accommodate customer growth and to replace deteriorated meters. Revenue metering of electrical service is regulated under the *Electricity and Gas Inspection Act (Canada)*. The additional cost associated with expenditures on AMR meters is justified on an economic basis.

Projected Expenditures

Table 2 provides a breakdown of the proposed expenditures for 2008 and a projection of expenditures through 2012.

Table 2				
Project Expenditures				
(000s)				
Cost Category	2008	2009	2010 - 2012	Total
Material	\$ 867	-	-	-
Labour – Internal	99	-	-	-
Labour – Contract	20	-	-	-
Engineering	-	-	-	-
Other	-	-	-	-
Total	\$ 986	\$1,023	\$3,492	\$5,501

Costing Methodology

Table 3 shows the annual expenditures for the most recent five-year period, as well as a projection for 2008.

Table 3							
Expenditure History and Unit Cost Projection							
Year	2003	2004	2005	2006	2007F	Avg	2008B
<i>Meter Requirements</i>							
New Connections	3,833	4,294	4,149	3,952	3,676	-	3,453
GROs/CSOs	1,455	8,544	12,399	13,371	2,944	-	4,733
Other	1,055	1,064	2,175	1,677	2,943	-	1,779
Total	6,343	13,902	18,723	19,000	9,543	-	9,965
<i>Meter Costs</i>							
Actual (000s)	\$ 595	\$1,297	\$1,342	\$1,463	\$1,091	-	\$ 986
Adjusted ¹ (000s)	\$ 662	\$1,403	\$ 885 ²	\$ 982 ²	\$1,091	-	-
Unit Cost ¹	\$ 104	\$ 101	\$ 79 ²	\$ 85 ²	\$ 114	\$ 97	\$ 99

¹ 2007 dollars.

² Excludes two groups of meters which failed compliance sampling testing as required by Measurement Canada in 2005 and 2006.

The budget estimate for Meters is calculated using the inflation adjusted average historical unit cost per installed meter multiplied by the expected number of meter installations. The expected number of meter installations is based on projected new customer connections, projected requirements to meet Industry Canada regulations and other requirements based on historical trends.

The quantity of meters for *new* customers is based on the Company's forecast of customer growth. The quantity for *replacement* purposes is determined using historical data for retired meters and sampling results from previous years. Sampling and replacement requirements are governed by Compliance Sampling Orders (CSOs) and Government Retest Orders (GROs) issued in accordance with regulations under the *Electricity and Gas Inspection Act (Canada)*.

To ensure this project is completed at the lowest possible cost consistent with safe and reliable service, all material and contract labour will be obtained through competitive tendering.

Future Commitments

This is not a multi-year project.

Project Title: Services (Pooled)

Project Cost: \$2,004,000

Project Description

This Distribution project involves 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 project is the replacement of existing service wires due to deterioration, failure or damage, as well as the installation of larger service wires to accommodate customers' additional load.

The proposed expenditures for new and replacement service wires are similar in nature. The expenditures are therefore pooled for consideration as a single capital project.

Justification

The *new* component of this project is justified based on the need to address customers' new service requirements. The *replacement* component is justified on the basis of the obligation to provide safe, reliable electrical service.

Projected Expenditures

Table 1 provides a breakdown of the proposed expenditures for 2008 and a projection of expenditures through 2012.

Table 1				
Project Expenditures				
(000s)				
Cost Category	2008	2009	2010 – 2012	Total
Material	\$ 603	-	-	-
Labour – Internal	1,112	-	-	-
Labour – Contract	97	-	-	-
Engineering	168	-	-	-
Other	24	-	-	-
Total	\$2,004	\$1,997	\$6,187	\$10,188

Costing Methodology

Table 2 shows the annual expenditures and unit costs for *new* services for the most recent five-year period, as well as a projected unit cost for 2008.

Table 2						
Expenditure History and Unit Cost Projection						
New Services						
Year	2003	2004	2005	2006	2007F	2008B
Total (000s)	\$ 1,421	\$ 1,659	\$ 1,894	\$ 1,863	\$ 1,628	\$ 1,602
Adjusted Cost (000s) ¹	\$ 1,603	\$ 1,806	\$ 2,002	\$ 1,911	-	-
New Customers	3,833	4,294	4,149	3,952	3,676	3,453
Unit Cost (\$/customer) ¹	\$ 418	\$ 421	\$ 483	\$ 484	\$ 443	\$ 464

¹ 2007 dollars.

The project cost for the connection of new customers is calculated on the basis of historical data. For *new* services, historical annual expenditures over the most recent five-year period, including the current year, are converted to current-year dollars (“Adjusted Cost”) and divided by the number of new customers in each year to derive the annual services cost per customer in current-year dollars (“Unit Cost”). The average of these unit costs, with unusually high and low data excluded, is modified by the GDP Deflator for Canada before being multiplied by the forecast number of new customers for the budget year to determine the budget estimate. The forecast number of new customers is derived from economic projections provided by independent agencies.

Table 3 shows the annual expenditures and unit costs for *replacement* services for the most recent five-year period, as well as a projected unit cost for 2008.

Table 3						
Expenditure History and Average Cost Projection						
Replacement Services						
(000s)						
Year	2003	2004	2005	2006	2007F	2008B
Total	\$568	\$349	\$339	\$399	\$393	\$402
Exclusions ¹	200	-	-	-	-	-
Adjusted Cost ²	\$415	\$380	\$358	\$409	\$393	-

¹ Exclusions in 2003 included program replacement of underground services in St. John’s and program replacement of aerial services in Lark Harbour and Port aux Basques.

² 2007 dollars.

The process of estimating the budget requirement for *replacement* services is similar to that for *new* services, except the budget estimate is based on the historical average of the total cost of replacement services, as opposed to a unit cost. To ensure consistency from year to year, expenditures related to planned service replacement programs are excluded from the calculation of the historical average.

To ensure this project is completed at the lowest possible cost consistent with safe and reliable service, all material and contract labour will be obtained through competitive tendering.

Future Commitments

This is not a multi-year project.

Project Title: Street Lighting (Pooled)

Project Cost: \$1,361,000

Project Description

This Distribution project involves the installation of new lighting fixtures, the replacement of existing fixtures, and the 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 fixtures requiring replacement.

The proposed expenditures for new and replacement street lights are similar in nature. The expenditures are therefore pooled for consideration as a single capital project.

Justification

The *new* component of this project is justified based on the need to address customers' new street light requirements. The *replacement* component is justified on the basis of the obligation to provide safe, reliable electrical service.

Projected Expenditures

Table 1 provides a breakdown of the proposed expenditures for 2008 and a projection of expenditures through 2012.

Table 1				
Project Expenditures				
(000s)				
Cost Category	2008	2009	2010 – 2012	Total
Material	\$ 737	-	-	-
Labour – Internal	485	-	-	-
Labour – Contract	105	-	-	-
Engineering	20	-	-	-
Other	14	-	-	-
Total	\$1,361	\$1,315	\$3,946	\$6,622

Costing Methodology

Table 2 shows the annual expenditures and unit costs for *new* street lights for the most recent five-year period, as well as a projected unit cost for 2008.

Table 2						
Expenditure History and Unit Cost Projection						
New Street Lights						
Year	2003	2004	2005	2006	2007F	2008B
Total (000s)	\$ 892	\$1,020	\$1,363	\$1,131	\$ 853	\$ 915
Exclusions ¹ (000s)	-	-	\$ 380	-	-	-
Adjusted Cost (000s) ²	\$ 1,000	\$ 1,107	\$ 1,037	\$ 1,157	\$ 853	-
New Customers	3,833	4,294	4,149	3,952	3,676	3,453
Unit Cost (\$/cust.) ²	\$ 261	\$ 258	\$ 250	\$ 293	\$ 232	\$ 265

¹ Exclusions in 2005 reflect the unusually high quantity of new Street Lights installed for the City of St. John's.

² 2007 dollars.

The project cost for the connection of new customers is calculated on the basis of historical data. For *new* street lights, historical annual expenditures over the most recent five-year period, including the current year, expressed in current-year dollars (“Adjusted Cost”) are divided by the number of new customers in each year to derive the annual street light cost per customer in current-year dollars (“Unit Cost”). The average of these unit costs, with unusually high and low data excluded, is modified by the GDP Deflator for Canada before being multiplied by the forecast number of new customers for the budget year to determine the budget estimate. The forecast number of new customers is derived from economic projections provided by independent agencies.

Table 3 shows the annual expenditures and unit costs for *replacement* street lights for the most recent five-year period, as well as a projected unit cost for 2008.

Table 3						
Expenditure History and Average Cost Projection						
Replacement Street Lights						
(000s)						
Year	2003	2004	2005	2006	2007F	2008B
Total	\$395	\$379	\$489	\$451	\$411	\$446
Exclusions ¹	-	-	70	-	-	-
Adjusted Cost ²	\$443	\$411	\$442	\$461	\$411	-

¹ Exclusions in 2005 reflect the Company's program replacement of underground wiring for streetlights in the St. John's area at a cost of \$70,000.

² 2007 dollars.

The process of estimating the budget requirement for *replacement* street lights is similar to that for *new* street lights, except the budget estimate is based on the historical average of the total cost of replacement street lights, as opposed to a unit cost. The estimate is based on historical annual expenditures for the replacement of damaged, deteriorated or failed street lights.

To ensure this project is completed at the lowest possible cost consistent with safe and reliable service, all material and contract labour will be obtained through competitive tendering.

Future Commitments

This is not a multi-year project.

Project Title: Transformers (Pooled)

Project Cost: \$5,811,000

Project Description

This Distribution project includes the cost of purchasing transformers for customer growth and the replacement or refurbishment of units that have deteriorated or failed.

Transformers requirements are similar in nature and justification. The expenditures are therefore pooled for consideration as a single capital project.

Justification

This project is justified on the basis of the obligation to meet customers' electrical service requirements and the need to replace defective or worn out electrical equipment in order to maintain a safe, reliable electrical system.

Projected Expenditures

Table 1 provides the breakdown of the proposed expenditures for 2008 and a projection of expenditures through 2012.

Table 1				
Project Expenditures				
(000s)				
Cost Category	2008	2009	2010 – 2012	Total
Material	\$5,811	-	-	-
Labour – Internal	-	-	-	-
Labour – Contract	-	-	-	-
Engineering	-	-	-	-
Other	-	-	-	-
Total	\$5,811	\$5,916	\$18,335	\$30,062

Costing Methodology

Table 2 shows the annual expenditures for the most recent five-year period, as well as an estimate for 2008.

Table 2						
Expenditure History and Budget Estimate						
(000s)						
Year	2003	2004	2005	2006	2007F	2008B
Total	\$5,529	\$5,449	\$4,976	\$5,643	\$5,728	\$5,811
Adjusted Cost ¹	\$6,038	\$5,810	\$5,223	\$5,739	\$5,728	-

¹ 2007 Dollars.

The process of estimating the budget requirement for transformers is based on a historical average. Historical annual expenditures related to distribution transformers over the most recent five-year period, including the current year, expressed in current-year dollars (“Adjusted Cost”) are modified by the GDP Deflator for Canada for the budget year to determine the budget estimate.

To ensure this project is completed at the lowest possible cost consistent with safe and reliable service, all material and contract labour will be obtained through competitive tendering.

Future Commitments

This is not a multi-year project.

Project Title: Reconstruction (Pooled)

Project Cost: \$3,129,000

Project Description

This Distribution project involves the replacement of deteriorated or damaged distribution structures and electrical equipment. This project is comprised of smaller unplanned projects that are identified during the budget year as a result of line inspections, or recognized during follow-up on operational problems, including power interruptions and customer trouble calls. This project consists of high priority projects that cannot be deferred to the next budget year.

Distribution Reconstruction requirements are similar in nature and justification. The expenditures are therefore pooled for consideration as a single capital project.

This project differs from the Rebuild Distribution Lines project, which involves rebuilding sections of lines that are identified and planned in advance of the annual capital budget preparation.

Justification

This project is justified on the basis of the need to replace defective or deteriorated electrical equipment in order to maintain a safe, reliable electrical system.

Projected Expenditures

Table 1 provides a breakdown of the proposed expenditures for 2008 and a projection of expenditures through 2012.

Table 1				
Project Expenditures				
(000s)				
Cost Category	2008	2009	2010 – 2012	Total
Material	\$ 740	-	-	-
Labour – Internal	1,260	-	-	-
Labour – Contract	706	-	-	-
Engineering	316	-	-	-
Other	107	-	-	-
Total	\$3,129	\$3,213	\$10,155	\$16,497

Costing Methodology

Table 2 shows the annual expenditures and costs in current dollars for the most recent five-year period, as well as the projected expenditure for 2008.

Table 2						
Expenditure History and Budget Estimate						
(000s)						
Year	2003	2004	2005	2006	2007F	2008B
Total	\$2,846	\$2,420	\$2,898	\$2,989	\$3,239	\$3,129
Adjusted Cost ¹	\$3,213	\$2,636	\$3,065	\$3,065	\$3,159	-

¹ 2007 dollars.

The process of estimating the budget requirement for Reconstruction is based on a historical average. Historical annual expenditures related to unplanned repairs to distribution feeders over the most recent five-year period, including the current year, expressed in current-year dollars (“Adjusted Cost”) are modified by the GDP Deflator for Canada for the budget year to determine the budget estimate.

To ensure this project is completed at the lowest possible cost consistent with safe and reliable service, all material and contract labour will be obtained through competitive tendering.

Future Commitments

This is not a multi-year project.

Project Title: Rebuild Distribution Lines (Pooled)

Project Cost: \$3,385,000

Project Description

This Distribution project involves the replacement of deteriorated distribution structures and electrical equipment that have been previously identified through ongoing line inspections, engineering reviews, or day to day operations.

Distribution rebuild projects are preventative capital maintenance projects which are either the complete rebuilding of deteriorated distribution lines or the selective replacement of various line components based on inspections or engineering reviews. These typically include the replacement of poles, crossarms, conductor, cutouts, surge/lightning arrestors, insulators and transformers.

The work for 2008 includes feeder improvements on 42 of the Company's 303 feeders, as well as the replacement of deteriorated padmount transformers.

While the various components of the project are not inter-dependent, they are similar in nature and justification. The expenditures are therefore pooled for consideration as a single capital project.

Justification

This project is justified on the basis of maintaining a safe, reliable electrical system.

The Company has over 8,600 kilometres of distribution lines in service and has an obligation to maintain this plant in good condition to safeguard the public and its employees and to maintain reliable electrical service. The replacement of deteriorated distribution structures and equipment is an important element of this obligation.

Projected Expenditures

Table 1 provides a breakdown of the proposed expenditures for 2008 and a projection of expenditures through 2012.

Table 1				
Project Expenditures				
(000s)				
Cost Category	2008	2009	2010 - 2012	Total
Material	\$1,635	-	-	-
Labour – Internal	1,371	-	-	-
Labour – Contract	194	-	-	-
Engineering	25	-	-	-
Other	160	-	-	-
Total	\$3,385	\$3,670	\$11,521	\$18,576

Costing Methodology

Table 2 shows the annual expenditures for this project for the most recent five-year period.

Table 2					
Expenditure History					
(000s)					
Year	2003	2004	2005	2006	2007F
Total	\$3,351	\$3,382	\$3,545	\$2,811	\$3,625

Distribution feeders are inspected in accordance with Newfoundland Power’s distribution inspection standards to identify:

- a) Deficiencies that are a risk to public or employee safety, or that are likely to result in imminent failure of a structure or hardware;
- b) Locations where lightning arrestors are required as observed in the *2003 Lightning Arrestor Review*;¹
- c) Locations where CP8080 and 2-piece insulators still exist. These insulators have a history of failure;²
- d) Locations where current limiting fuses are required in accordance with the internal memo dated January 11, 2000;³ and

¹ See the 2004 Capital Budget Application, Volume III, Distribution, Appendix 2, Attachment B for further detail on lightning arrestor requirements.

² See the 2004 Capital Budget Application, Volume III, Distribution, Appendix 2, Attachment C for further detail on problem insulators.

³ See the 2004 Capital Budget Application, Volume III, Distribution, Appendix 2, Attachment D for further detail on current limiting fuse requirements.

- e) Hardware for which a high risk of failure has been identified, such as automatic sleeves and porcelain cutouts.⁴

The budget estimate is based on engineering estimates of individual rebuild requirements.

To ensure this project is completed at the lowest possible cost consistent with safe and reliable service, all material and contract labour will be obtained through competitive tendering.

Future Commitments

This is not a multi-year project.

⁴ See the 2004 Capital Budget Application, Volume III, Distribution, Appendix 2, Attachment E and Attachment F for further detail on automatic sleeves and porcelain cutouts.

Project Title: Relocate/Replace Distribution Lines for Third Parties (Pooled)

Project Cost: \$606,000

Project Description

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

The Company's response to requests for relocation and replacement of distribution facilities by governments and other utility service providers is governed by the provisions of agreements in place with the requesting parties.

While the individual requirements are not inter-dependent, they are similar in nature and justification, and are therefore pooled for consideration as a single capital project.

Justification

This project is justified on the basis of the need to respond to legitimate requirements for plant relocations resulting from third party activities.

Projected Expenditures

Table 1 provides a breakdown of the proposed expenditures for 2008 and a projection of expenditures through 2012.

Table 1				
Project Expenditures				
(000s)				
Cost Category	2008	2009	2010 – 2012	Total
Material	\$ 212	-	-	-
Labour – Internal	194	-	-	-
Labour – Contract	127	-	-	-
Engineering	62	-	-	-
Other	11	-	-	-
Total	\$ 606	\$622	\$1,965	\$3,193

Costing Methodology

Table 2 shows the annual expenditures for this project for the most recent five-year period.

Table 2					
Expenditure History					
(000s)					
Year	2003	2004	2005	2006	2007F
Total	\$330	\$440	\$630	\$ 1,801	\$ 2,110
Adjusted Cost ¹	\$373	\$479	\$666	\$ 823 ²	\$ 590 ³

¹ 2007 dollars.
² Excludes \$999,000 for Persona cross island project.
³ Excludes \$1,520,000 for Persona cross island project.

The budget estimate is based on historical expenditures and specific project estimates for extraordinary requirements. Generally these expenditures are associated with a number of small projects that are not specifically identified at the time the budget is prepared. Historical annual expenditures related to distribution line relocations and replacements over the most recent five-year period, including the current year, expressed in current-year dollars (“Adjusted Cost”) are modified by the GDP Deflator for Canada for the budget year to determine the budget estimate. To ensure consistency from year to year, expenditures related to past extraordinary requirements are excluded from the calculation.

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

To ensure this project is completed at the lowest possible cost consistent with safe and reliable service, all material and contract labour will be obtained through competitive tendering.

Future Commitments

This is not a multi-year project.

Project Title: Distribution Reliability Initiative (Pooled)

Project Cost: \$1,286,000

Project Description

This Distribution project involves the replacement of deteriorated poles, conductor and hardware to reduce both the frequency and duration of power interruptions to the customers served by specific distribution lines. The nature of the upgrading work follows from a detailed assessment of past service 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. Options are evaluated to improve reliability performance and project plans are subsequently developed from an engineering analysis.

This project is a continuation of the Distribution Reliability Initiative project from 2006 that was postponed in 2007. Three projects were undertaken in 2006 that were planned to be completed over three years. The second year of these projects was postponed from 2007 to 2008 to accommodate the Rattling Brook Refurbishment project.

Table 1 identifies the feeders where upgrading will continue in 2008. It shows the number of customers affected, and the average unscheduled distribution yearly interruption statistics for the five-year period ending December 31, 2006. These SAIFI⁵ and SAIDI⁶ statistics exclude planned power interruptions and interruptions due to all causes other than distribution system failure. An analysis of each feeder to be upgraded is contained in report *4.1 Distribution Reliability Initiative*.

Table 1			
Distribution Interruption Statistics			
5-Years to December 31, 2006			
Feeder	Number of Customers	Distribution SAIFI	Distribution SAIDI
Botwood (BOT-01)	1,625	3.11	7.07
Lewisporte (LEW-02)	1,384	3.82	9.74
Glovertown (GLV-02)	1,251	3.19	7.36
Company Average	-	1.45	2.03

⁵ System Average Interruption Frequency Index (SAIFI) calculated by dividing the number of customers that have experienced an outage by the total number of customers in an area. Distribution SAIFI records the average number of outages related to distribution system failure.

⁶ System Average Interruption Duration Index (SAIDI) 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. Distribution SAIDI records the average hours of outage related to distribution system failure.

While the work on different feeders is not inter-dependent, the various components of this project are similar in nature and justification. The expenditures are therefore pooled for consideration as a single capital project.

Justification

This project is justified on the basis of the obligation to provide reliable electrical service. Customers supplied by these feeders experience power interruptions more often, or of longer duration, than the Company average. Individual feeder projects have been prioritized based on their historic SAIFI and SAIDI statistics.

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

Projected Expenditures

Table 2 provides a breakdown of the proposed expenditures for 2008 and a projection of expenditures through 2012.

Table 2				
Project Expenditures				
(000s)				
Cost Category	2008	2009	2010 - 2012	Total
Material	\$ 621	-	-	-
Labour – Internal	521	-	-	-
Labour – Contract	74	-	-	-
Engineering	10	-	-	-
Other	60	-	-	-
Total	\$1,286	\$1,489	\$4,673	\$7,448

Cost Methodology

Table 3 shows the annual expenditures for this project for the most recent five-year period.

Table 3					
Expenditure History					
(000s)					
Year	2003	2004	2005	2006	2007F¹
Total	\$1,546	\$763	\$1,065	\$3,365	\$0

¹The Distribution Reliability Initiative was suspended in 2007 to accommodate the Rattling Brook project.

The budget estimate is based on detailed engineering estimates of individual feeder upgrade requirements.

To ensure this project is completed at the lowest possible cost consistent with safe and reliable service, all material and contract labour will be obtained through competitive tendering.

Future Commitments

This is not a multi-year project.

Project Title: Install Capacitors to Reduce Losses (Pooled)

Project Cost: \$200,000

Project Description

This Distribution project involves the installation of distribution capacitors on selected feeders to reduce line losses. Reducing line loss improves the energy efficiency of the distribution system by reducing loss of energy.

Report *4.2 Install Capacitors to Reduce Distribution Losses* identifies the feeders to be completed in 2008, the energy savings to be targeted and the associated cost savings.

Justification

The project costs are justified by the savings in energy from the reduction in losses at the feeder level. The project will provide approximately 732,000 kWh of energy to the system at a levelized unit cost of 2.38¢/kWh.

Projected Expenditures

Table 1 provides the breakdown of the proposed expenditures for 2008 and a projection of expenditures through 2012.

Table 1				
Project Expenditures				
(000s)				
Cost Category	2008	2009	2010 – 2012	Total
Material	\$ 150	-	-	-
Labour – Internal	10	-	-	-
Labour – Contract	-	-	-	-
Engineering	35	-	-	-
Other	5	-	-	-
Total	\$ 200	-	-	\$200

Cost Methodology

The budget estimate is based on detailed engineering estimates of individual feeder requirements.

To ensure this project is completed at the lowest possible cost consistent with safe and reliable service, all material and contract labour will be obtained through competitive tendering.

Future Commitments

This is not a multi-year project.

Project Title: Interest During Construction (Pooled)

Project Cost: \$77,000

Project Description

This Distribution project is an allowance for 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.

Justification

The interest incurred during construction is justified on the same basis as the distribution work orders to which it relates.

Projected Expenditures

Table 1 provides the breakdown of the proposed expenditures for 2008 and a projection of expenditures through 2012.

Table 1				
Project Expenditures				
(000s)				
Cost Category	2008	2009	2010 – 2012	Total
Material	-	-	-	-
Labour – Internal	-	-	-	-
Labour – Contract	-	-	-	-
Engineering	-	-	-	-
Other	77	-	-	-
Total	\$77	\$78	\$243	\$398

Cost Methodology

Table 2 shows the annual expenditures for the most recent five-year period. The 2007 forecast amount and the 2008 budget amount are based on the average of the annual expenditures for the period 2003 to 2006.

Table 2					
Expenditure History and Budget Estimate					
(000s)					
Year	2003	2004	2005	2006	2007F
Total	\$74	\$66	\$73	\$68	\$81

The budget estimate for interest during construction 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 used to finance the capital expenditure and is calculated in accordance with Order No. P.U. 37 (1981).

To ensure this project is completed at the lowest possible cost consistent with safe and reliable service, all material and contract labour will be obtained through competitive tendering.

Future Commitments

This is not a multi-year project.

GENERAL PROPERTY

Project Title: Tools and Equipment (Pooled)

Project Cost: \$690,000

Project Description

This General Property project is required to add or replace tools and equipment used in providing safe, reliable electrical service. Users of tools and equipment include line staff, engineering technicians, engineers and electrical and mechanical tradespersons. The majority of these tools are used in normal day to day operations. As well, specialized tools and equipment are required to maintain, repair, diagnose or commission Company assets required to deliver service to customers.

Individual requirements for the addition or replacement of tools and equipment are not inter-dependent. However, the expenditure requirements are similar in nature and justification. They are therefore pooled for consideration as a single capital project.

All items within this project involve expenditures of less than \$50,000. These items are consolidated into the following categories:

1. *Operations Tools and Equipment (\$225,000)*: This is the replacement of tools and equipment used by line and field technical staff in the day to day operations of the Company. These tools are maintained on a regular basis. However, over time they degrade and wear out, especially hot line equipment which must meet rigorous safety requirements. Where appropriate, such tools will be replaced with battery and hydraulic alternatives to improve productivity and working conditions.

2. *Engineering Tools and Equipment (\$400,000)*: This project includes engineering test equipment, tools and substation portable grounds used by electrical and mechanical maintenance personnel and engineering technicians. Engineering test equipment is required to perform system calibration, commissioning and testing of power system facilities and testing and analysis of associated data communications facilities.

3. *Office Furniture (\$65,000)*: This project is the replacement of office furniture that has deteriorated. The Company has approximately 600 full time employees. The office furniture utilized by these employees deteriorates through normal use and must be replaced.

Justification

Suitable tools and equipment in good condition enable staff to perform work in a safe, effective and efficient manner.

Additional or replacement tools are purchased to either maintain or improve quality of work and overall operational efficiency.

Projected Expenditures

Table 1 provides a breakdown of the proposed expenditures for 2008 and a projection of expenditures through 2012.

Table 1				
Project Expenditures				
(000s)				
Cost Category	2008	2009	2010 - 2012	Total
Material	\$ 580	-	-	-
Labour – Internal	-	-	-	-
Labour – Contract	-	-	-	-
Engineering	10	-	-	-
Other	100	-	-	-
Total	\$ 690	\$703	\$2,177	\$3,570

Costing Methodology

Table 2 shows the annual expenditures for this project for the most recent five-year period.

Table 2					
Expenditure History					
(000s)					
Year	2003	2004	2005	2006	2007F
Total	\$865	\$570	\$693	\$659	\$600

The project cost is based on an assessment of historical expenditures for the replacement of tools and equipment that become broken or worn out, and is adjusted for anticipated expenditure requirements for extraordinary items.

To ensure this project is completed at the lowest possible cost consistent with safe and reliable service, all material and contract labour will be obtained through competitive tendering.

Future Commitments

This is not a multi-year project.

Project Title: Additions to Real Property (Pooled)

Project Cost: \$122,000

Project Description

This General Property project is required to ensure the continued safe operation of Company facilities and workplaces. The Company has in excess of 20 office and other buildings. There is an ongoing requirement to upgrade or replace equipment and facilities at these buildings due to failure or normal deterioration. Past expenditures have included such items as emergency roof repairs and correcting major drainage problems.

The individual budget items are not inter-dependent. However, they are similar in nature and are therefore pooled for consideration as a single capital project.

Justification

This project is necessary to maintain buildings and support facilities and to operate them in a safe and efficient manner.

Projected Expenditures

Table 1 provides a breakdown of the proposed expenditures for 2008 and a projection of expenditures through 2012.

Table 1				
Project Expenditures				
(000s)				
Cost Category	2008	2009	2010 - 2012	Total
Material	\$ 111	-	-	-
Labour – Internal	11	-	-	-
Labour – Contract	-	-	-	-
Engineering	-	-	-	-
Other	-	-	-	-
Total	\$ 122	\$236	\$732	\$1,090

Costing Methodology

Table 2 shows the annual expenditures for this project for the most recent five-year period.

Table 2					
Expenditure History					
(000s)					
Year	2003	2004	2005	2006	2007F
Total	\$237	\$336	\$334	\$150	\$125
Exclusions	157	211	224	-	-
Adjusted Cost	\$ 80	\$125	\$110	\$150	\$125

The budget for this project is calculated on the basis of historical data as well as engineering estimates for planned budget items as required. To ensure consistency from year to year, expenditures related to planned additions are excluded from the historical average calculation.

To ensure this project is completed at the lowest possible cost consistent with safe and reliable service, all material and contract labour will be obtained through competitive tendering.

Future Commitments

This is not a multi-year project.

Project Title: Standby Diesel Generators (Other)

Project Cost: \$165,000

Project Description

This General Property project consists of the installation of a new diesel generating unit to provide a back-up power supply to the Company's Burin area operations building.

The 2006 Capital Budget Application included the report *Standby Generation at Newfoundland Power Facilities*. This report identified the need for standby generation at the Company's area operations buildings across the province.

For a major storm and power outage situation, full power restoration could take several days to weeks, depending on the severity of the event. In such a situation, a response would involve teams, working around the clock, that are comprised of field employees (involved in the physical restoration work), and support employees (involved in customer service, communications, information services, materials management, engineering, and operational support). Essentially, the Company has to operate at peak performance during such emergency situations.

During a major storm and power outage situation, restoration teams on the Burin Peninsula would require technology and communications infrastructure located in the Burin area operations building. The uninterruptible power supply ("UPS") system that is currently located at the Burin area operations building is only sufficient to sustain SCADA communications for a short duration (several hours). This limited UPS system would not support operating conditions required during a major outage event.

At a more fundamental level, employees involved with a major restoration effort require a workspace with adequate lighting, heating or cooling. A reliable source of standby generation is required to provide employees with a supportive workspace where they can analyze, organize, prioritize and plan the recovery efforts, provide customer service, allocate materials and communicate instructions to crews working in the field.

Justification

This project is necessary to ensure electrical service at the Company's Burin area operations building is not interrupted during a widespread power outage. This will permit the Company to facilitate the restoration of electrical service to customers during extended power outages as quickly as possible.

Projected Expenditures

Table 1 provides a breakdown of the proposed expenditures for 2008 and a projection of expenditures through 2012.

Table 1				
Project Expenditures				
(000s)				
Cost Category	2008	2009	2010 - 2012	Total
Material	\$ 150	-	-	-
Labour – Internal	15	-	-	-
Labour – Contract	-	-	-	-
Engineering	-	-	-	-
Other	-	-	-	-
Total	\$ 165	\$142	\$142	\$449

Costing Methodology

Table 2 shows the annual expenditures for this project for the most recent five-year period.

Table 2					
Expenditure History					
(000s)					
Year	2003	2004	2005	2006	2007F
Total	-	-	-	\$653	-

The budget estimate for this project is comprised of engineering estimates.

To ensure this project is completed at the lowest possible cost consistent with safe and reliable service, all material and contract labour will be obtained through competitive tendering.

Future Commitments

This is not a multi-year project.

TRANSPORTATION

Project Title: Purchase Vehicles and Aerial Devices (Pooled)

Project Cost: \$2,214,000

Project Description

This Transportation project involves the necessary replacement of heavy fleet, passenger and off-road vehicles. Detailed evaluation of the units to be replaced indicates they have reached the end of their useful lives.

Table 1 lists the units to be acquired in 2008.

Table 1	
2008 Proposed Vehicle Replacements	
Category	No. of Units
Heavy fleet vehicles ⁷	4
Passenger vehicles ⁸	36
Off-road vehicles ⁹	11
Total	51

The expenditures for individual vehicle replacements are not inter-dependent. However, they are similar in nature and justification. The expenditures are therefore pooled for consideration as a single capital project.

Justification

This project is justified on the basis of the need to replace existing capital items that have reached the end of their useful service lives.

Projected Expenditures

Table 2 provides a breakdown of the proposed expenditures for 2008 and a projection of expenditures through 2012.

⁷ The Heavy Fleet vehicles category includes the purchase of replacement line trucks.

⁸ The Passenger vehicles category includes the purchase of cars and light duty trucks.

⁹ The Off-road vehicles category includes snowmobiles, ATVs and trailers.

Table 2				
Project Expenditures				
(000s)				
Cost Category	2008	2009	2010 - 2012	Total
Material	\$2,154	-	-	-
Labour – Internal	50	-	-	-
Labour – Contract	-	-	-	-
Engineering	-	-	-	-
Other	10	-	-	-
Total	\$2,214	\$2,264	\$7,165	\$11,643

Table 3 shows the expenditures for this project for the most recent five-year period.

Table 3					
Expenditure History					
(000s)					
Year	2003	2004	2005	2006	2007F
Total	\$3,429	\$2,660	\$2,838	\$2,751	\$2,206

Costing Methodology

Newfoundland Power individually evaluates all vehicles considered for replacement according to a number of criteria to ensure replacement is the least cost option.

Evaluation for replacement is initiated when individual vehicles reach a threshold age or level of usage. Heavy fleet vehicles are considered for replacement at 10 years of age or usage of 250,000 kilometres. For passenger vehicles the guideline is five years of age or 150,000 kilometres.

Vehicles reaching the threshold are evaluated on a number of criteria, such as overall condition, maintenance history and immediate repair requirements, to determine whether they have reached the end of their useful service lives. Based on such evaluations, it has been determined that each unit proposed for replacement has reached the end of its useful life.

New vehicles are acquired through competitive tendering to ensure the lowest possible cost consistent with safe, reliable service.

Future Commitments

This is not a multi-year project.

TELECOMMUNICATIONS

Project Title: Replace/Upgrade Communications Equipment (Pooled)

Project Cost: \$104,000

Project Description

This Telecommunications project involves the replacement and/or upgrade of communications equipment, including radio communication equipment and communications equipment associated with electrical system control.

The Company has approximately 340 pieces of mobile radio equipment in service. Each year approximately 20 units break down and where practical, equipment is repaired and deficiencies rectified. However, where it is not feasible to repair equipment or correct deficiencies, replacement is required.

Newfoundland Power engages an engineering consultant to inspect radio towers. Deficiencies identified through these inspections are addressed through this project.

Justification

Reliable communications equipment is essential to the provision of safe, reliable electrical service. Communications towers must comply with safety codes and standards to ensure employee and public safety.

Projected Expenditures

Table 1 provides a breakdown of the proposed expenditures for 2008 and a projection of expenditures through 2012.

Table 1				
Project Expenditures				
(000s)				
Cost Category	2008	2009	2010 - 2012	Total
Material	\$ 72	-	-	-
Labour – Internal	1	-	-	-
Labour – Contract	-	-	-	-
Engineering	-	-	-	-
Other	31	-	-	-
Total	\$ 104	\$ 121	\$ 376	\$ 601

Costing Methodology

Table 2 shows the annual expenditures and costs in current dollars for the most recent five-year period, as well as the projected expenditure for 2007.

Table 2					
Expenditure History					
(000s)					
Year	2003	2004	2005	2006	2007F
Total	\$41	\$150	\$102	\$173	\$101
Adjusted Cost ¹	\$46	\$162	\$107	\$176	\$101

¹ 2007 dollars.

The process of estimating the budget requirement for communications equipment is based on a historical average. Historical annual expenditures related to upgrading and replacing communications equipment over the most recent five-year period, including the current year, expressed in current-year dollars (“Adjusted Cost”) are modified by the GDP Deflator for Canada for the budget year to determine the budget estimate. To ensure consistency from year to year, expenditures related to planned projects are excluded from the calculation of the historical average.

To ensure this project is completed at the lowest possible cost consistent with safe and reliable service, all material and contract labour will be obtained through competitive tendering.

Future Commitments

This is not a multi-year project.

Project Title: Fibre Optic Circuit Replacement (Other)

Project Cost: \$120,000

Project Description

This Telecommunications project involves the replacement of leased and rented fibre optic communication circuits with fibre optic cables owned and maintained by Newfoundland Power.

The Company has 32 fibre optic systems in service which are a mix of owned, leased and rented facilities.

Newfoundland Power has completed an engineering review of these fibre optic communication circuits. Over the next few years, lease agreements will expire and new agreements for ten year terms will need to be established. Details of the engineering review are found in report *5.1 Fibre Optic Circuit Replacement*.

Justification

Reliable communications equipment is essential to the provision of safe, reliable electrical service. Replacement of rented facilities with Newfoundland Power owned fibre optic cables is justified by the Net Present Value analysis provided in *5.1 Fibre Optic Circuit Replacement*.

Projected Expenditures

Table 1 provides a breakdown of the proposed expenditures for 2008 and a projection of expenditures through 2012.

Table 1				
Project Expenditures				
(000s)				
Cost Category	2008	2009	2010 - 2012	Total
Material	\$ 99	-	-	-
Labour – Internal	5	-	-	-
Labour – Contract	-	-	-	-
Engineering	16	-	-	-
Other	-	-	-	-
Total	\$ 120	\$ 215	\$ 522	\$ 857

Costing Methodology

The budget estimate for this project is comprised of engineering estimates.

To ensure this project is completed at the lowest possible cost consistent with safe and reliable service, all material and contract labour will be obtained through competitive tendering.

Future Commitments

This is not a multi-year project.

INFORMATION SYSTEMS

Project Title: **Application Enhancements (Pooled)**

Project Cost: **\$1,389,000**

Project Description

This Information Systems project is necessary to enhance the functionality of software applications. The Company's software applications are used to support all aspects of business operations including provision of service to customers, ensuring the reliability of the electrical system and compliance with regulatory and financial reporting requirements.

Of the software applications proposed to be enhanced in 2008, some, such as the Customer Service System, are custom-developed while others, such as the Asset Management System, are vendor-provided.

The application enhancements proposed for 2008 are not inter-dependent. But, they are similar in nature and justification and are therefore pooled for consideration as a single capital project.

Details on proposed expenditures are included in **6.1 2008 Application Enhancements**.

Justification

Some of the proposed enhancements included in this project are justified on the basis of improving customer service. Some will result in increased operational efficiencies. Some projects will have a positive impact on both customer service and operational efficiency.

Cost benefit analyses, where appropriate, are provided in **6.1 2008 Application Enhancements**.

Projected Expenditures

Table 1 provides a breakdown of the proposed expenditures for 2008 and a projection of expenditures through 2012.

Table 1				
Project Expenditures				
(000s)				
Cost Category	2008	2009	2010 - 2012	Total
Material	\$ 95	-	-	-
Labour – Internal	922	-	-	-
Labour – Contract	-	-	-	-
Engineering	42	-	-	-
Other	330	-	-	-
Total	\$1,389	\$1,325	\$4,220	\$6,934

Costing Methodology

Table 2 shows the annual expenditures for this project for the most recent five-year period.

Table 2					
Expenditure History					
(000s)					
Year	2003	2004	2005	2006	2007F
Total	\$920	\$1,313	\$1,185	\$1,540	\$1,281

The budget for this project is based on cost estimates for the individual budget items.

All materials and services for this project will be purchased after examining the competitive bids of prospective suppliers. Where alternative suppliers do not exist, all materials and services will be negotiated with a sole-source supplier to ensure least cost.

Future Commitments

This is not a multi-year project.

Project Title: **System Upgrades (Pooled)**

Project Cost: **\$487,000**

Project Description

This Information Systems project involves necessary upgrades to the computer software underlying the Company’s business applications. Most upgrades are required by software vendors to address known software issues or to maintain support provided by the vendors.

For 2008, the project includes upgrades to the Great Plains Financial Management System, the Company’s Intranet, and Substation Design software. The project also includes improvements to the Information Technology Change Management and Configuration Management software.

The system upgrades proposed for 2008 are not inter-dependent. However, they are similar in nature and justification, and are therefore pooled for consideration as a single capital project.

Details on 2008 proposed expenditures are included in **6.2 2008 System Upgrades**.

Justification

This project is justified on the basis of maintaining current levels of customer service and operational efficiency supported by the software.

Projected Expenditures

Table 1 provides a breakdown of the proposed expenditures for 2008 and a projection of expenditures through 2012.

Table 1				
Project Expenditures				
(000s)				
Cost Category	2008	2009	2010 – 2012	Total
Material	\$ 50	-	-	-
Labour – Internal	347	-	-	-
Labour – Contract	-	-	-	-
Engineering	-	-	-	-
Other	90	-	-	-
Total	\$ 487	\$850	\$2,670	\$4,007

Costing Methodology

Table 2 shows the annual expenditures and unit costs for this project for the most recent five-year period.

Table 2					
Expenditure History					
(000s)					
Year	2003	2004	2005	2006	2007F
Total	\$721	\$861	\$779	\$1,017	\$689

The budget for this project is based on cost estimates for the individual budget items.

All materials and services for this project will be purchased after examining the competitive bids of prospective suppliers. Where alternative suppliers do not exist, all materials and services will be negotiated with a sole-source supplier to ensure least cost.

Future Commitments

This is not a multi-year project.

Project Title: Personal Computer Infrastructure (Pooled)

Project Cost: \$408,000

Project Description

This Information Systems project is necessary for the replacement or upgrade of personal computers (“PCs”), printers and associated assets that have reached the end of their useful lives.

In 2008, 104 PCs will be purchased consisting of 76 desktop computers and 28 laptop computers. This project also covers the purchase of additional peripheral equipment such as monitors, scanners, and mobile devices, and the purchase of printers to replace existing printers that have reached the end of their useful lives.

The individual PCs and peripheral equipment are not inter-dependent. However, they are similar in nature and justification, and are therefore pooled for consideration as a single capital project.

Minimum specifications for replacement PCs and peripheral equipment are reviewed annually to ensure the personal computing infrastructure remains effective. Industry best practices, technology trends, and the Company’s experience are considered when establishing minimum specifications.

Newfoundland Power is currently able to achieve a four to six year life cycle for its PCs before they require replacement. This is achieved through the Company’s practice of cascading PCs to employees who do not require the computing power of newer PCs, thereby maximizing the asset life of the PC.

Table 1 outlines the PC additions and retirements for 2006 and 2007, as well as the proposed additions and retirements for 2008.

Table 1									
PC Additions and Retirements									
2006 – 2008									
	2006			2007F			2008B		
	Add	Retire	Total	Add	Retire	Total	Add	Retire	Total
Desktop	47	65	469	57	57	469	76	76	469
Laptop	15	9	129	23	23	129	28	28	129
Total	62	74	598	80	80	598	104	104	598

Justification

This project is justified on the basis of the need to replace personal computers and associated equipment that has reached the end of its useful life.

Projected Expenditures

Table 2 provides a breakdown of the proposed expenditures for 2008 and a projection of expenditures through 2012.

Table 2				
Project Expenditures				
(000s)				
Cost Category	2008	2009	2010 - 2012	Total
Material	\$217	-	-	-
Labour – Internal	85	-	-	-
Labour – Contract	-	-	-	-
Engineering	-	-	-	-
Other	106	-	-	-
Total	\$408	\$425	\$1,335	\$2,168

Costing Methodology

Table 3 shows the annual expenditures for this project for the most recent five-year period.

Table 3					
Expenditure History					
(000s)					
Year	2003	2004	2005	2006	2007F
Total	\$518	\$424	\$412	\$380	\$400

The project cost for this project is calculated on the basis of historical expenditures and on cost estimates for the individual budget items. Historical annual expenditures over the most recent three-year period are considered and an approximate unit cost is determined based on historical average prices and a consideration of pricing trends. These unit costs are then multiplied by the quantity of units (i.e. desktop, laptop, printer, etc.) to be purchased. Quantities are forecast by identifying the number of unit replacements resulting from lifecycle retirements and the number

of new units required to accommodate new software applications or work methods. Once the unit price estimates and quantities have been determined, the work associated with the procurement and installation of the units is estimated based on experience and historical pricing.

To ensure this project is completed at the lowest possible cost consistent with safe and reliable service, all materials and services for this project will be purchased after examining the competitive bids of prospective suppliers.

Future Commitments

This is not a multi-year project.

Project Title: **Shared Server Infrastructure (Pooled)**

Project Cost: **\$889,000**

Project Description

This Information Systems project includes the procurement, implementation, and management of the hardware and software relating to the operation of shared servers. Shared servers are computers that support applications used by multiple employees. Management of these shared servers, and their components, is critical to ensuring that these applications operate effectively at all times.

This project is necessary to maintain current performance of the Company's shared servers and to provide the additional infrastructure needed to accommodate new and existing applications. This involves the replacement and upgrade of servers, disks, processors, and memory as well as security upgrades.

The shared server infrastructure requirements for 2008 are not inter-dependent. However, they are similar in nature and justification, and are therefore pooled for consideration as a single capital project.

Further details on shared server infrastructure requirements for 2008 are provided in **6.3 2008 Shared Server Infrastructure**.

Justification

This project is justified on the basis of maintaining current levels of customer service and operational efficiencies that are supported by the Company's shared server infrastructure.

Projected Expenditures

Table 1 provides a breakdown of the proposed expenditures for 2008 and a projection of expenditures through 2012.

Table 1				
Project Expenditures				
(000s)				
Cost Category	2008	2009	2010 – 2012	Total
Material	\$ 445	-	-	-
Labour – Internal	339	-	-	-
Labour – Contract	-	-	-	-
Engineering	-	-	-	-
Other	105	-	-	-
Total	\$ 889	\$850	\$2,700	\$4,439

Costing Methodology

Table 2 shows the annual expenditures for this project for the most recent five-year period.

Table 2					
Expenditure History					
(000s)					
Year	2003	2004	2005	2006	2007F
Total	\$1,608	\$699	\$593	\$493	\$877

The budget for this project is based on cost estimates for the individual budget items.

All materials and services for this project will be purchased after examining the competitive bids of prospective suppliers. Where alternative suppliers do not exist, all materials and services will be negotiated with a sole-source supplier to ensure least cost.

Future Commitments

This is not a multi-year project.

Project Title: Network Infrastructure (Pooled)

Project Cost: \$119,000

Project Description

This Information Systems project involves the replacement of network components that have reached the end of their useful life and are no longer supported by the vendor.

Network components such as routers and switches interconnect shared servers and personal computers across the Company, enabling the transport and sharing of data such as SCADA data, VHF radio signals, and customer service and corporate data.

The Company plans to replace twelve network switches located in the Company's offices across the province that are no longer supported by the vendor. This project is necessary to maintain current performance of the Company's internal network.

The individual network infrastructure requirements for 2008 are not inter-dependent. However, they are similar in nature and justification, and are therefore pooled for consideration as a single capital project.

Justification

The reliability and availability of the network infrastructure is critical to enabling the Company to continue to provide least cost reliable service to customers. The replacement or upgrade of network components will ensure the continued stability of the corporate network, thereby avoiding disruptions to customer service and critical communications.

This project is justified on the basis of maintaining current levels of customer service and operational efficiencies that are supported by the Company's network infrastructure.

Projected Expenditures

Table 1 provides a breakdown of the proposed expenditures for 2008 and a projection of expenditures through 2012.

Table 1				
Project Expenditures				
(000s)				
Cost Category	2008	2009	2010 – 2012	Total
Material	\$ 85	-	-	-
Labour – Internal	34	-	-	-
Labour – Contract	-	-	-	-
Engineering	-	-	-	-
Other	-	-	-	-
Total	\$ 119	\$150	\$500	\$769

Costing Methodology

Table 2 shows the annual expenditures for this project for the most recent five-year period. No Network Infrastructure expenditures were required in 2006 and 2007.

Table 2					
Expenditure History					
(000s)					
Year	2003	2004	2005	2006	2007F
Total	\$533	\$432	\$286	\$0	\$0

The budget for this project is based on cost estimates for the individual budget items.

All materials and services for this project will be purchased after examining the competitive bids of prospective suppliers. Where alternative suppliers do not exist, all materials and services will be negotiated with a sole-source supplier to ensure least cost.

Future Commitments

This is not a multi-year project.

UNFORESEEN ALLOWANCE

Project Title: Allowance for Unforeseen Items (Other)

Project Cost: \$750,000

Project Description

This Unforeseen Allowance project is necessary to cover any unforeseen capital expenditures which have not been budgeted elsewhere. The purpose of the account is to permit the Company to act expeditiously to deal with events affecting the electrical system in advance of seeking specific approval of the Board. Examples of such expenditures are the replacement of facilities and equipment due to major storm damages or equipment failure.

While the contingencies for which this budget allowance is intended may be unrelated, it is appropriate that the entire allowance be considered as a single capital budget item.

Justification

This project provides funds for timely service restoration.

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.

Costing Methodology

An allowance of \$750,000 for unforeseen capital expenditures has been included in all of Newfoundland Power's capital budgets in recent years.

To ensure the projects to which the proposed expenditures are applied are completed at the lowest possible cost consistent with safe and reliable service, all material and contract labour will be obtained through competitive tendering.

Future Commitment

This is not a multi-year project.

GENERAL EXPENSES CAPITALIZED

Project Title: **General Expenses Capitalized (Other)**

Project Cost: **\$2,800,000**

Project Description

General Expenses Capitalized (“GEC”) are general expenses of Newfoundland Power that are capitalized due to the fact that they are related, directly or indirectly, to the Company’s capital projects. GEC includes amounts from two sources: direct charges to GEC and amounts allocated from specific operating accounts.

Justification

Certain of Newfoundland Power’s general expenses are related, either directly or indirectly, to the Company’s capital program. Expenses are charged to GEC in accordance with guidelines approved by the Board in Order No. P.U. 3 (1995-96).

Costing Methodology

In Order No. P.U. 3 (1995-96), the Board approved guidelines to determine the expenses of the Company to be included in GEC. The budget estimate of GEC is determined in accordance with pre-determined percentage allocations to GEC based on the guidelines approved by the Board.

Future Commitment

This is not a multi-year project.

Newfoundland & Labrador

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