

General Plant Functionalization Factors

**NEWFOUNDLAND POWER
COST OF SERVICE STUDY
AS OF DECEMBER 31, 2001**

GENERAL PLANT ALLOCATION

For the purposes of allocating General Plant for the cost of service study, the General Plant is allocated based on 7 primary groups. These are:

- Communications (Plant and Expenses)
- Buildings and Structures
- Land and Land Improvements
- Transportation
- Computer Hardware
- Computer Software
- Other

These groups are allocated based on detailed study and allocation into various categories. Those Categories are:

- System Control Centre
- Production
- Transmission
- Substations
- Distribution
- Customer Service/Accounting
- Communications
- Stores
- Corporate General
- General to general property group.

The second set of categories are reduced to the functional groups for use in the cost of service study. These are: Production, Transmission, Distribution and Customer Service/Accounting.

To reduce the numbers the following allocations are used (See Details Schedule 1)

- System Control Centre allocated based on allocation of Scada Equipment
- Substation is allocated based on detailed allocation study
- Communications is based on allocator derived for Communication Expenses
- Stores is allocated based on year end inventory
- Corporate General is allocated based on Administration and General Allocator used in the most recent Cost of Service Study
- General to each general property group is allocated based on subtotals for that group.

The Results of the Allocation are shown below:

Category	Total	Production	Transmission	Distribution	Customer Service Customer Accounting	See Schedule #
Communication Plant	100.0%	23.1%	24.6%	42.5%	9.8%	2
Communication Expense	100.0%	16.0%	27.2%	43.6%	13.2%	3
Buildings and Structures	100.0%	8.4%	16.5%	55.8%	19.3%	4
Land and Land Improvements	100.0%	5.7%	14.1%	58.6%	21.6%	5
Transportation	100.0%	3.9%	13.1%	81.0%	2.0%	6
Computer Hardware	100.0%	4.7%	3.4%	20.4%	71.5%	7
Computer Software	100.0%	5.5%	5.8%	15.0%	73.7%	8
Other	100.0%	5.4%	15.5%	62.5%	16.6%	9

**NEWFOUNDLAND POWER
COST OF SERVICE STUDY
AS OF DECEMBER 31, 2001**

Schedule 1
Page 1 of 1

GENERAL ALLOCATORS FOR USE IN DERIVING GENERAL PLANT ALLOCATIONS

Unless otherwise noted the allocators are based on Year-end 2001.

Allocation of System Control Centre Costs

- Based on allocation of SCADA equipment

	Total	Production	Transmission	Distribution	Customer Service/ Customer Accounting
	100.0%	26.0%	41.6%	32.4%	0.0%

Allocation of Substation Costs

- Based on allocation of Substation Equipment

	Total	Production	Transmission	Distribution	Customer Service/ Customer Accounting
	100.0%	3.77%	33.01%	63.22%	0.00000%

Allocation of Communication Cost

- Based on allocator derived for Communication Expenses (Schedule 3)

	Total	Production	Transmission	Distribution	Customer Service/ Customer Accounting
	100.0%	14.2%	26.3%	42.6%	16.9%

Allocation of Stores related Cost

- Based on year end inventory

	Total	Production	Transmission	Distribution	Customer Service/ Customer Accounting	General
Inventory	4,185,194	\$196,566	\$875,544	\$2,817,434	-	295,650
Split	100.0%	5.1%	22.5%	72.4%	0.0%	

Allocation of Corporate - General Cost (Administration and General)

- Based on Administration and General from the 2000 Cost of Service Study.

	Total	Production	Transmission	Distribution	Customer Service/ Customer Accounting
2000 COS	20,073	3,507	1,971	8,814	5,781
Split	100.0%	17.5%	9.8%	43.9%	28.8%

**NEWFOUNDLAND POWER
COST OF SERVICE STUDY
AS OF DECEMBER 31, 2001**

REDUCTION TO COST OF SERVICE FUNCTION GROUPS FOR COMMUNICATION EQUIPMENT

CATEGORY	VALUE	PRODUCTION	TRANSMISSION	DISTRIBUTION	CUSTOMER SERV./ACC.	CORPORATE GENERAL
Detailed Results	16,010,660	3,325,665	3,738,726	5,880,803	970,853	2,094,612
Alloc. Corp. Gen.	-	365,954	205,673	919,739	603,246	(2,094,612)
TOTAL	16,010,660	3,691,620	3,944,400	6,800,542	1,574,099	-
% Splits	100.0%	23.1%	24.6%	42.5%	9.8%	0.0%

**NEWFOUNDLAND POWER
COST OF SERVICE STUDY
AS OF DECEMBER 31, 2001**

ALLOCATION OF COMMUNICATIONS EQUIPMENT

Results of Detailed Review

CATEGORY	VALUE	PRODUCTION	TRANSMISSION	DISTRIBUTION	CUSTOMER SERV./ACC.	CORPORATE GENERAL	SCADA	NETWORK
Repeater Sites and Mobile Radios ¹	4,047,441	321,048	563,778	3,162,616	-	-	-	-
Cables ²	2,676,437	987,023	-	-	-	-	920,774	768,640
SCADA Equipment ³	6,602,901	1,714,783	2,746,281	2,141,836	-	-	-	-
Telephone Equipment ⁴	2,094,612	-	-	-	-	2,094,612	-	-
Wide Area Network ⁵	589,269	-	-	-	-	-	-	589,269
	16,010,660	3,022,855	3,310,059	5,304,452	-	2,094,612	920,774	1,357,909

Reallocation of SCADA and NETWORK Costs

CATEGORY	VALUE	PRODUCTION	TRANSMISSION	DISTRIBUTION	CUSTOMER SERV./ACC.	CORPORATE GENERAL	SCADA	NETWORK
Subtotal from Detailed Allocation	16,010,660	3,022,855	3,310,059	5,304,452	-	2,094,612	920,774	1,357,909
Reallocate SCADA ³	-	239,126	382,969	298,679	-	-	(920,774)	-
Reallocate NETWORK ³	-	63,684	45,699	277,672	970,853	-	-	(1,357,909)
TOTAL	16,010,660	3,325,665	3,738,726	5,880,803	970,853	2,094,612	-	0

NOTES:

1 - Repeater Sites and Mobile Radios are allocated based on detailed review of vehicle use for those that contain radios.

	Total	Production	Transmission	Distribution	Customer Serv./Acc.
% Split	100.0%	7.9%	13.9%	78.1%	0.0%

2 - Cables are allocated based on detailed review of cable use.

	Total	SCADA	Production	Wide Area Network
% Split	100.0%	34.4%	36.9%	28.7%

3 - SCADA Equipment is allocated based on Remote Telemetry Units Usage.

	Total	Production	Transmission	Distribution	Customer Serv./Acc.
% Split	100.0%	26.0%	41.6%	32.4%	0%

4 - Telephone Equipment is allocated 100% to Corporate General

5 - Wide Area Network is allocated to Network which in turn is allocated based on Computer Hardware General (Schedule 7)

	Total	Production	Transmission	Distribution	Customer Serv./Acc.
% Split	100.0%	4.7%	3.4%	20.4%	71%

**NEWFOUNDLAND POWER
COST OF SERVICE STUDY
AS OF DECEMBER 31, 2001**

REDUCTION TO COST OF SERVICE FUNCTION GROUPS FOR COMMUNICATION EXPENSE

CATEGORY	VALUE	PRODUCTION	TRANSMISSION	DISTRIBUTION	CUSTOMER SERV./ACC.	CORPORATE GENERAL	COMMUNIC. GENERAL
Detailed Results	802,502	82,193	151,302	225,735	59,291	58,279	225,702
Reassign Corp. Gen.	-	10,182	5,723	25,590	16,784	(58,279)	-
Sub Total	802,502	92,375	157,024	251,325	76,075	-	225,702
Reassign Comm. Gen. ¹	-	36,146	61,444	98,344	29,768	-	(225,702)
TOTAL	802,502	128,522	218,468	349,669	105,843	-	-
% Splits	100.0%	16.0%	27.2%	43.6%	13.2%	0.0%	0.0%

1 - Split based on Sub Total

**NEWFOUNDLAND POWER
COST OF SERVICE STUDY
AS OF DECEMBER 31, 2001**

Schedule 3
Page 2 of 3

ALLOCATION OF COMMUNICATIONS EXPENSE

Results of Detailed Review

CATEGORY	VALUE	PRODUCTION	TRANSMISSION	DISTRIBUTION	CUSTOMER SERV./ACC.	CORPORATE GENERAL	COMMUNIC. GENERAL	SCADA	VHS RADIO	NETWORK
General	225,702	-	-	-	-	-	225,702	-	-	-
Repeater Sites ¹	68,211	5,411	9,501	53,299	-	-	-	-	-	-
Mobile Radios ¹	16,105	1,277	2,243	12,584	-	-	-	-	-	-
Cables ²	5,982	2,206	-	-	-	-	-	2,058	-	1,718
Leased Circuits ³	347,617	-	24,595	-	-	-	-	159,939	82,365	80,718
SCADA Equipment ⁴	80,113	20,805	33,321	25,987	-	-	-	-	-	-
Telephone Equipment ⁵	58,279	-	-	-	-	58,279	-	-	-	-
Wide Area Network ⁶	493	-	-	-	-	-	-	-	-	493
	<u>802,502</u>	<u>29,700</u>	<u>69,660</u>	<u>91,870</u>	<u>-</u>	<u>58,279</u>	<u>225,702</u>	<u>161,997</u>	<u>82,365</u>	<u>82,929</u>

Step 1 Allocation

- Allocate total for SCADA column based on the direct allocation of SCADA Equipment
- Allocate total for VHS Radio column based on the direct allocation of Mobile Radio Expenses
- Allocate total for Network based on allocation for Computer Hardware General (See Schedule 7)

CATEGORY	VALUE	PRODUCTION	TRANSMISSION	DISTRIBUTION	CUSTOMER SERV./ACC.	CORPORATE GENERAL	COMMUNIC. GENERAL	SCADA	VHS RADIO	NETWORK
Subtotal from Detailed Allocation	802,502	29,700	69,660	91,870	-	58,279	225,702	161,997	82,365	82,929
Allocate SCADA	-	42,071	67,378	52,548	-	-	-	(161,997)	-	-
Allocate VHS Radio	-	6,533	11,473	64,359	-	-	-	-	(82,365)	-
Allocate NETWORK	<u>-</u>	<u>3,889</u>	<u>2,791</u>	<u>16,958</u>	<u>59,291</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>(82,929)</u>
TOTAL	802,502	82,193	151,302	225,735	59,291	58,279	225,702	0	-	0

NOTES:

1 - Repeater Sites and Mobile Radios are allocated based on detailed review of vehicle use for those that contain radios.

	Total	Production	Transmission	Distribution	Customer Serv./Acc.
% Split	100.0%	7.9%	13.9%	78.1%	0.0%

2 - Cables are allocated based on detailed review of cable use.

	Total	SCADA	Production	Wide Area Network
% Split	100.0%	34.4%	36.9%	28.7%

3 - Leased Circuits costs are allocated based on Detailed review of the use of each circuit.

	Total	SCADA	VHS Radio	Wide Area Network	Protection Transmission
% Split	100.0%	46.0%	23.7%	23.2%	7.1%

4 - SCADA Equipment is allocated based on Remote Telemetry Units Usage.

	Total	Production	Transmission	Distribution	Customer Serv./Acc.
% Split	100.0%	26.0%	41.6%	32.4%	0%

5 - Telephone Equipment is allocated 100% to Corporate General

6 - Wide Area Network is allocated to Network

**NEWFOUNDLAND POWER
COST OF SERVICE STUDY
AS OF DECEMBER 31, 2001**

REDUCTION TO COST OF SERVICE FUNCTION GROUPS FOR BUILDINGS

	TOTAL	System Control Centre	PRODUCTION	TRANSMISSION	SUBSTN	DISTRIBUTION	CUSTOMER SERV./ACC.	COMM	STORES	CORPORATE GENERAL
Buildings - Small	1,488,374	-	124,402	9,539	116,926	788,101	108,951	-	186,974	153,482
Buildings - Large	30,172,352	1,868,277	305,567	1,338,583	1,858,984	6,405,901	3,840,822	239,174	7,148,560	7,166,484
Totals	31,660,726	1,868,277	429,969	1,348,121	1,975,910	7,194,002	3,949,773	239,174	7,335,534	7,319,966
Alloc. Sys. Ctr.	-	(1,868,277)	485,194	777,055	-	606,028	-	-	-	-
Alloc. Substation	-	-	74,492	652,248	(1,975,910)	1,249,171	-	-	-	-
Alloc. Commun.	-	-	33,988	62,965	-	101,784	40,437	(239,174)	-	-
Alloc. Stores	-	-	370,717	1,651,243	-	5,313,575	-	-	(7,335,534)	-
Alloc. Corp. Gen.	-	-	1,278,888	718,759	-	3,214,177	2,108,141	-	-	(7,319,966)
Total	31,660,726	-	2,673,248	5,210,391	-	17,678,736	6,098,351	-	0	-
	100.0%		8.4%	16.5%	0.0%	55.8%	19.3%	0.0%	0.0%	0.0%

**NEWFOUNDLAND POWER
COST OF SERVICE STUDY
AS OF DECEMBER 31, 2001**

COST ALLOCATION OF BUILDINGS¹

LOCATION	VALUE	SCC	PRODUCTION	TRANSMISS	SUBSTN	DISTR	CUSTOMER SERV./ACC.	COMM	STORES	CORPORATE GENERAL
Buildings and Structures - Small										
Centennial Rest Park-Flavins Lane	36,138									36,138
Mobile	124,402		124,402							
Calvert	41,180					32,944	4,118		4,118	
Bell Island	70,021					56,017	7,002		7,002	
Bay Roberts	23,889				23,889					
Electric Museum-Victoria Hydro Plant	80,783									80,783
Blaketown	9,387				9,387					
Dunville	78,894					63,115	7,889		7,889	
Trepassey	75,568					60,454	7,557		7,557	
Grand Bank (New)	59,219					47,375	5,922		5,922	
Bay L'Argent	51,323					41,058	5,132		5,132	
Port Union	216,792			9,539		64,170	39,023		104,060	
Lethbridge	14,315					14,315				
Clareville (Poleyard)	43,424					43,424				
Port Rexton	36,561									36,561
Catalina	30,376					30,376				
Glovertown	20,627					16,502	2,063		2,063	
Clareville	4,555					4,555				
Wesleyville	26,597					21,278	2,660		2,660	
Summerford	21,893					17,514	2,189		2,189	
Twillingate	50,971					40,777	5,097		5,097	
Rushy Pond	19,245					19,245				
Lewisporte	47,436					37,949	4,744		4,744	
Botwood	8,181					8,181				
Springdale	15,096					12,077	1,510		1,510	
Buchans	33,358					26,686	3,336		3,336	
Corner Brook (Storage Yard)	39,661				9,915	19,831			9,915	
Deer Lake	51,721					41,377	5,172		5,172	
Baie Verte	25,647					20,518	2,565		2,565	
St. Georges	3,070								3,070	
Stephenville (Gallant St.)	98,313				73,735	24,578				
Doyles	29,731					23,785	2,973		2,973	
Total-Small Buildings	1,488,374	-	124,402	9,539	116,926	788,101	108,951	-	186,974	153,482

NEWFOUNDLAND POWER
COST OF SERVICE STUDY
AS OF DECEMBER 31, 2001

COST ALLOCATION OF BUILDINGS¹

LOCATION	VALUE	SCC	PRODUCTION	TRANSMISS	SUBSTN	DISTR	CUSTOMER SERV./ACC.	COMM	STORES	CORPORATE GENERAL
Buildings and Structures - Large										
Kenmount Road	5,876,291		305,567	458,351	740,413	311,443	135,155	129,278		3,796,084
St. John's Regional Centre	10,989,604			329,688	219,792	2,197,921	2,197,921	109,896	4,395,842	1,538,545
New Control Centre	1,078,734	1,078,734								
Transformer Shop	998,644				898,780	99,864				
Old Control Centre	789,543	789,543								
Carbonear (Office)	1,390,362			69,518		486,627	250,265		347,591	236,362
Carbonear (Warehouse)	401,960			24,118		160,784	20,098		120,588	76,372
Whitbourne	613,078			36,785		245,231	30,654		183,923	116,485
Salt Pond	656,398			32,820		229,739	118,152		164,100	111,588
Gander	1,372,379			68,619		480,333	247,028		343,095	233,304
Clarenville Regional Building	1,872,961			93,648		655,536	337,133		468,240	318,403
Grand Falls Office	400,702			20,035		140,246	72,126		100,176	68,119
Grand Falls Service	811,215			48,673		324,486	40,561		243,365	154,131
Corner Brook (Office-West St.)	760,486			38,024		266,170	136,887		190,122	129,283
Corner Brook (Service-Maple Valley)	758,763			45,526		303,505	37,938		227,629	144,165
Stephenville (Office & Service)	1,129,556			56,478		395,345	203,320		282,389	192,025
Port-aux-Basques	271,676			16,301		108,670	13,584		81,503	51,618
Total - Large Buildings	30,172,352	1,868,277	305,567	1,338,583	1,858,984	6,405,901	3,840,822	239,174	7,148,560	7,166,484
Total - All Buildings	31,660,726	1,868,277	429,969	1,348,121	1,975,910	7,194,002	3,949,773	239,174	7,335,534	7,319,966

1 - Based on a general assessment of Floor Space Usage.

**NEWFOUNDLAND POWER
COST OF SERVICE STUDY
AS OF DECEMBER 31, 2001**

REDUCTION TO COST OF SERVICE FUNCTION GROUPS FOR LAND AND LAND IMPROVEMENTS

	TOTAL	System Control Centre	PRODUCTION	TRANSMISSION	SUBSTN	DISTRIBUTION	CUSTOMER SERV./ACC.	COMM	STORES	CORPORATE GENERAL
Detailed Results	5,043,446	17,075	23,335	209,989	133,895	1,312,993	796,507	36,181	1,522,188	991,283
Alloc. Sys. Ctr.	-	(17,075)	4,434	7,102	-	5,539	-	-	-	-
Alloc. Substation	-	-	5,048	44,199	(133,895)	84,649	-	-	-	-
Alloc. Commun.	-	-	5,142	9,525	-	15,397	6,117	(36,181)	-	-
Alloc. Stores	-	-	76,927	342,647	-	1,102,613	-	-	(1,522,188)	-
Alloc. Corp. Gen.	-	-	173,189	97,336	-	435,270	285,488	-	-	(991,283)
	5,043,446	-	288,075	710,797	-	2,956,461	1,088,113	-	-	-
	100.0%	0.0%	5.7%	14.1%	0.0%	58.6%	21.6%	0.0%	0.0%	0.0%

**NEWFOUNDLAND POWER
COST OF SERVICE STUDY
AS OF DECEMBER 31, 2001**

Schedule 5
Page 2 of 3

COST ALLOCATION OF LAND AND LAND IMPROVEMENTS¹

LOCATION	VALUE	SCC	PRODUCTION	TRANSMISS	SUBSTN	DISTR	CUSTOMER SERV./ACC.	COMM	STORES	CORPORATE GENERAL
Land and Improvements										
St. John's Regional Centre	2,548,261			76,448	50,965	509,652	509,652	25,483	1,019,304	356,757
Kenmount Road	448,746		23,335	35,002	56,542	23,784	10,321	9,872		289,890
Topsail Road	77,612	17,075			26,388	32,597			1,552	
Red Cliff	1,950									1,950
Torbay	2,168									2,168
Bell Island	10,378					8,302	1,038		1,038	
Calvert	9,618					7,694	962		962	
Carbonear Office	105,564			5,278		36,947	19,002		26,391	17,946
Carbonear Warehouse	105,565			6,334		42,226	5,278		31,670	20,057
Whitbourne	82,075			4,925		32,830	4,104		24,623	15,594
Dunville	350					280	35		35	
Salt Pond	100			5		35	18		25	17
St. Lawrence	13,648									13,648
Grand Bank	4,953					3,962	495		495	
Bay L'Argent	12,995					10,396	1,300		1,300	
Port Union	7,743			341		2,292	1,394		3,717	
Lethbridge	1,200					1,200				
Clareville	980,688			49,034		343,241	176,524		245,172	166,717
Catalina	10,780					10,780				
Gander	172,761			8,638		60,466	31,097		43,190	29,369
Gambo	950					760	95	95		
Wesleyville	230					184	23	23		
Twillingate	364					291	36	36		
Grand Falls Office	13,650			683		4,778	2,457		3,413	2,321
Grand Falls Service	4,367			262		1,747	218		1,310	830
Rushy Pond	15,676					15,676				
Botwood	2,386					2,386				
Springdale	615					492	62	62		
Corner Brook - West St.	9,243			462		3,235	1,664		2,311	1,571
Baie Verte	4,500					3,600	450	450		

PUB-216
Attachment E
NP 2003 GRA

**NEWFOUNDLAND POWER
COST OF SERVICE STUDY
AS OF DECEMBER 31, 2001**

Schedule 5
Page 3 of 3

COST ALLOCATION OF LAND AND LAND IMPROVEMENTS¹

LOCATION	VALUE	SCC	PRODUCTION	TRANSMISS	SUBSTN	DISTR	CUSTOMER SERV./ACC.	COMM	STORES	CORPORATE GENERAL
Massey Drive - Corner Brk	2,725								2,725	
Maple Valley - Corner Brk	234,932			14,096		93,973	11,747		70,480	44,637
St. Georges	70								70	
Stephenville	81,751			4,088		28,613	14,715		20,438	13,898
Doyles	1,602					1,282	160	160		
Port-aux-Basques	73,230			4,394		29,292	3,662		21,969	13,914
Total Land/Improvements	5,043,446	17,075	23,335	209,989	133,895	1,312,993	796,507	36,181	1,522,188	991,283

1 - Based on Cost Split of Building Located on Property

**NEWFOUNDLAND POWER
COST OF SERVICE STUDY
AS OF DECEMBER 31, 2001**

Schedule 6
Page 1 of 1

ALLOCATION OF TRANSPORTATION EQUIPMENT

Results of Detailed Review of Vehicle Use

Radio Allocation

VEHICLE TYPE	Total	Generation	Transmission	Distribution	Customer Service	Admin & General
1	6.0	-	0.7	4.4	-	1.0
2	158.0	19.0	21.8	113.3	-	4.0
3	67.0	-	8.7	58.3	-	-
4	24.0	-	3.7	20.3	-	-
5	-	-	-	-	-	-
Total	255.0	19.0	34.8	196.2	-	5.0
Alloc. Admin. & Gen. ¹		1.2	0.7	3.1		(5.0)
Total	255.0	20.2	35.5	199.3	-	-
Radio Allocator	100.0%	7.9%	13.9%	78.1%	0.0%	

Plant Cost Allocation

VEHICLE TYPE	Total	Generation	Transmission	Distribution	Customer Service	Admin & General
1	257,792	15,306	30,142	166,395	16,869	29,081
2	4,961,413	625,468	610,399	3,101,769	302,869	320,908
3	11,712,745	-	1,522,657	10,190,088	-	-
4	2,108,140	-	293,174	1,814,966	-	-
5	1,635,877	110,216	212,467	1,313,194	-	-
Total	20,675,968	750,990	2,668,839	16,586,413	319,737	349,989
Alloc. Admin. & Gen. ¹		61,147	34,366	153,679	100,796	(349,989)
Total	20,675,968	812,138	2,703,205	16,740,092	420,534	-
Plant Cost Allocator	100.0%	3.9%	13.1%	81.0%	2.0%	

1 - Assignment of Administration and General is based on split shown in Schedule 1.

**NEWFOUNDLAND POWER
COST OF SERVICE STUDY
AS OF DECEMBER 31, 2001**

FUNCTIONAL SPLITS FOR COMPUTER HARDWARE AND SOFTWARE

	TOTAL	PRODUCTION	TRANSMISSION	DISTRIBUTION	CUSTOMER SERV./ACC.
Hardware (See Below)	\$11,221,025	\$526,252	\$377,629	\$2,294,535	\$8,022,609
Software (Schedule 8)	<u>\$23,029,274</u>	<u>\$1,262,528</u>	<u>\$1,340,148</u>	<u>\$3,458,131</u>	<u>\$16,968,467</u>
Total	\$34,250,299	\$1,788,780	\$1,717,777	\$5,752,666	\$24,991,076
% Splits	100.00%	5.22%	5.02%	16.80%	72.97%

REDUCTION TO COST OF SERVICE FUNCTION GROUPS FOR COMPUTER HARDWARE

	TOTAL	SYSTEM CONTROL CENTRE	PRODUCTION	TRANSMISSION	SUBSTN	DISTRIBUTION	CUSTOMER SERV./ACC.	COMM	STORES	HARDWARE GENERAL	CORPORATE GENERAL
Hand Held Meter Reading Equipment	1,515,069	-	-	-	-	-	1,515,069	-	-	-	-
Vax Related Hardware	4,430,053	-	-	-	-	-	2,658,032	-	-	1,772,021	-
PC & Terminal Hardware	3,315,342	32,450	113,576	75,717	81,126	897,792	811,258	48,675	-	-	1,254,746
Network and Other Shared Equipment	<u>1,960,560</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>1,960,560</u>	<u>-</u>
Total	11,221,024	32,450	113,576	75,717	81,126	897,792	4,984,359	48,675	-	3,732,581	1,254,746
Alloc. Sys. Ctr.	-	(32,450)	8,427	13,497	-	10,526	-	-	-	-	-
Alloc. Substation	-	-	3,058	26,780	(81,126)	51,288	-	-	-	-	-
Alloc. Commun.	-	-	6,917	12,814	-	20,715	8,230	(48,675)	-	-	-
Alloc. Stores	-	-	-	-	-	-	-	-	-	-	-
Alloc. Corp. Gen.	-	-	219,220	123,206	-	550,956	361,365	-	-	-	(1,254,746)
Sub Total	11,221,024	0	351,199	252,014	-	1,531,277	5,353,954	-	-	3,732,581	-
Alloc. Hard. Gen.	-	0	175,053	125,615	-	763,258	2,668,655	-	-	(3,732,581)	-
TOTAL	<u>11,221,024</u>	<u>0</u>	<u>526,252</u>	<u>377,629</u>	<u>-</u>	<u>2,294,535</u>	<u>8,022,609</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
% Splits	100.0%	0.0%	4.7%	3.4%	0.0%	20.4%	71.5%	0.0%	0.0%	0.0%	0.0%

**NEWFOUNDLAND POWER
COST OF SERVICE STUDY
AS OF DECEMBER 31, 2001**

COST ALLOCATION OF COMPUTER HARDWARE

CATEGORY	VALUE	SYSTEM					CUSTOMER SERV./ACC.	COMM	STORES	HARDWARE GENERAL	CORPORATE GENERAL
		CONTROL CENTRE	PRODUCTION	TRANSMISS	SUBSTN	DISTR					
Hand Held Meter Reading Equipment	1,515,069						1,515,069				
Vax Related Hardware ¹	4,430,053						2,658,032			1,772,021	
PC & Terminal Hardware ²	3,315,342	32,450	113,576	75,717	81,126	897,792	811,258	48,675	-	-	1,254,746
Network and Other Shared Equipment ³	1,960,560									1,960,560	
TOTAL	11,221,024	32,450	113,576	75,717	81,126	897,792	4,984,359	48,675	-	3,732,581	1,254,746

NOTES

1 - Vax Related Hardware allocation is based on fact that 60% of VMS based hardware/system components are used to support the customer service function and the rest is associated with general computer applications.

2 - PC and Terminal Hardware is based on an review of PC users.

3 - Network and Other Shared Hardware is allocated to Hardware General.

	TOTAL	SCC	PRODUCTION	TRANSMISS	SUBSTN	DISTR	CUSTOMER SERV./ACC.	COMM	STORES	HARDWARE GENERAL	CORPORATE GENERAL
PC & Terminal Allocation	613	6	21	14	15	166	150	9			232
% Splits	100.0%	1.0%	3.4%	2.3%	2.4%	27.1%	24.5%	1.5%	0.0%	0.0%	37.8%

**NEWFOUNDLAND POWER
COST OF SERVICE STUDY
AS OF DECEMBER 31, 2001**

ALLOCATION TO COST OF SERVICE FUNCTION GROUPS FOR COMPUTER SOFTWARE

	TOTAL	SYSTEM CONTROL CENTRE	PRODUCTION	TRANSMISSION	SUBSTN	DISTRIBUTION	CUSTOMER SERV./ACC.	COMM	STORES	SOFTWARE GENERAL	CORPORATE GENERAL
Detailed Results	23,029,274	1,358,744	163,147	59,927	540,779	792,477	12,738,141	-	-	4,692,341	2,683,718
Alloc. Sys. Ctr.	-	(1,358,744)	352,868	565,129	-	440,747	-	-	-	-	-
Alloc. Substation	-	-	20,387	178,511	(540,779)	341,880	-	-	-	-	-
Alloc. Commun.	-	-	-	-	-	-	-	-	-	-	-
Alloc. Stores	-	-	-	-	-	-	-	-	-	-	-
Alloc. Corp. Gen.	-	-	468,879	263,519	-	1,178,413	772,908	-	-	-	(2,683,718)
Sub Total	23,029,274	0	1,005,281	1,067,086	-	2,753,518	13,511,049	-	-	4,692,341	-
Alloc. Soft. Gen.	-	0	257,247	273,063	-	704,613	3,457,418	-	-	(4,692,341)	-
TOTAL	23,029,274	0	1,262,528	1,340,148	-	3,458,131	16,968,467	-	-	(0)	-
% Splits	100.0%	0.0%	5.5%	5.8%	0.0%	15.0%	73.7%	0.0%	0.0%	0.0%	0.0%

NEWFOUNDLAND POWER
COST OF SERVICE STUDY
AS OF DECEMBER 31, 2001

COST ALLOCATION OF GENERAL PROPERTY

CATEGORY	VALUE	SCC	PRODUCTION	TRANSMISS	SUBSTN	DISTR	CUSTOMER SERV./ACC.	COMM	STORES	SOFTWARE GENERAL	CORPORATE GENERAL
Computer Equipment											
Computer Hardware - General	11,221,026										
Computer Software:											
Application software-small upgrades	138,721									138,721	
AutoDes system upgrade	77,917					77,917					
Axiant/Oracle	495,419									495,419	
BOSS	314,728										314,728
Compaq 3000R Server/Web site	86,524										86,524
Environment management	184,119									184,119	
Internet	198,450						99,225				99,225
Interruption reporting system	114,112	114,112									
Intranet	78,633									78,633	
Misc software	46,269									46,269	
MS Enterprise	248,216									248,216	
New application dev. Software	17,105									17,105	
OEM	140,293									140,293	
Operations & Engineering	94,620	-	-	-	-	-					94,620
Operations Management	115,527									115,527	
PC software upgrades	786,344									786,344	
PES & SRS Migration	70,181					70,181					
Power systems	41,236			13,746	13,745	13,745					
Regional operations	254,932	35,000				159,932	60,000				
Remittance Processor	107,134						107,134				
SCADA	1,078,789	1,078,789									
Software licences	252,341									252,341	
Substation management system	438,461				438,461						
Switching order system	130,843	130,843									
System development	31,018									31,018	
Tech Env. Migration - CSS	1,665,727						1,665,727				
Tech Env. Migration - JUS	54,037						54,037				
Tech Env. Migration - MES	30,020						30,020				
Tech Env. Migration - SLMS	36,027						36,027				
Technological initiative	127,935										127,935
Time sheet entry system	133,514										133,514
Activity Based Costing	131,881					131,881					
AST Manhattan V1590 App. Server	14,654									14,654	
Bi-Monthly Enhancements	54,211						54,211				

NEWFOUNDLAND POWER
COST OF SERVICE STUDY
AS OF DECEMBER 31, 2001

COST ALLOCATION OF GENERAL PROPERTY											
CATEGORY	VALUE	SCC	PRODUCTION	TRANSMISS	SUBSTN	DISTR	CUSTOMER SERV./ACC.	COMM	STORES	SOFTWARE GENERAL	CORPORATE GENERAL
Cacheing	20,207									20,207	
Compaq Prosignia Applic. Server	15,359									15,359	
Corporate Budgeting	778,216									778,216	
CSS	9,179,129						9,179,129				
E Plan	23,366				23,366						
Equal Payment Plan Upgrade	64,839						64,839				
Exch Server Implementation	56,843									56,843	
FASBE	510,294										510,294
Generic Financing Plan	74,397						74,397				
Grounding (CCDEGS)	56,106				56,106						
Hand-held Metering	286,137						286,137				
Help Desk Management	20,435									20,435	
HRMS	800,426										800,426
Load Research	988						988				
Long Term forecasting Methodology	88,243						88,243				
Lotus Notes, EM, Fax, Workflow App.	311,396									311,396	
MES	36,473						36,473				
MES/SLMS/CSS Interface Upgrade	44,377						44,377				
Meter Pro Software	9,991						9,991				
Microsoft Office	242,099									242,099	
Payroll	481,785										481,785
Plant Maintenance	163,147		163,147								
Power Flow Analysis	18,203			9,102	9,101						
Powerhouse	53,047									53,047	
Pre-Authorized Pmt. (CSS)	60,732						60,732				
Productivity Plus Upgrade	21,000									21,000	
Project Management	10,103									10,103	
PSS/U Feeder Analysis	26,852					26,852					
Reading Resequency	242,325						242,325				
SLMS	273,103					273,103					
Technical Environment Migration	971,658					38,866	544,129			388,663	
TLCADD Rel. 4.0	37,079			37,079							
TRMS	34,667										34,667
Workflow Software	226,314									226,314	
	23,029,274	1,358,744	163,147	59,927	540,779	792,477	12,738,141	-	-	4,692,341	2,683,718

NOTES:

1 - Allocation is based on a detailed review of software.

**NEWFOUNDLAND POWER
COST OF SERVICE STUDY
AS OF DECEMBER 31, 2001**

REDUCTION TO COST OF SERVICE FUNCTION GROUPS FOR GENERAL PROPERTY - OTHER

	TOTAL	SYSTEM					CUSTOMER			CORPORATE
		CONTROL CENTRE	PRODUCTION	TRANSMISSION	SUBSTN	DISTRIBUTION	SERV./ACC.	COMM	STORES	GENERAL
Office Furniture & Equip	6,316,761	-	189,503	631,676	505,341	2,842,542	2,021,364	126,335	-	-
Stores Equipment	672,146	-	28,902	116,281	75,952	451,010	-	-	-	-
Shop Equipment	780,708	-	-	-	-	-	-	-	-	780,708
Lab & Test Equipment	4,184,106	-	262,929	607,178	637,097	2,565,664	-	111,239	-	-
Engineering Equipment	359,702	-	46,736	34,127	44,546	234,293	-	-	-	-
Miscellaneous Equip.	1,472,998	-	-	187,275	-	1,285,723	-	-	-	-
Total	13,786,421	-	528,070	1,576,537	1,262,936	7,379,233	2,021,364	237,574	-	780,708
Alloc. Sys. Ctr.*	-	-	-	-	-	-	-	-	-	-
Alloc. Substation*	-	-	47,613	416,895	(1,262,936)	798,428	-	-	-	-
Alloc. Commun.*	-	-	33,761	62,544	-	101,103	40,166	(237,574)	-	-
Alloc. Stores*	-	-	-	-	-	-	-	-	-	-
Alloc. Corp. Gen.*	-	-	136,399	76,659	-	342,807	224,843	-	-	(780,708)
	13,786,421	-	745,842	2,132,635	-	8,621,571	2,286,373	-	-	-
	100.0%		5.4%	15.5%	0.0%	62.5%	16.6%	0.0%	0.0%	0.0%

* Allocations from Schedule 1

**NEWFOUNDLAND POWER
COST OF SERVICE STUDY
AS OF DECEMBER 31, 2001**

COST ALLOCATION OF GENERAL PROPERTY - OTHER

CATEGORY	VALUE	SYSTEM ONTROL CENTR	PRODUCTION	TRANSMISS	SUBSTN	DISTR	CUSTOMER SERV./ACC.	COMM	STORES	CORPORATE GENERAL
Office Furniture & Equip ¹	6,316,761	-	189,503	631,676	505,341	2,842,542	2,021,364	126,335	-	-
Stores Equipment ²	672,146	-	28,902	116,281	75,952	451,010	-	-	-	-
Shop Equipment ³	780,708	-	-	-	-	-	-	-	-	780,708
Lab & Test Equipment ⁴	4,184,106	-	262,929	607,178	637,097	2,565,664	-	111,239	-	-
Engineering Equipment ⁵	359,702	-	46,736	34,127	44,546	234,293	-	-	-	-
Miscellaneous Equip. ⁶	1,472,998	-	-	187,275	-	1,285,723	-	-	-	-
Total Oth. Gen. Property	13,786,421	-	528,070	1,576,537	1,262,936	7,379,233	2,021,364	237,574	-	780,708

NOTES

1 - Office Furniture and Equipment allocated based on Building Allocations.

- Based on Building allocation for area office buildings excluding Stores and General

	VALUE	SCC	PRODUCTION	TRANSMISS	SUBSTN	DISTR	CUSTOMER	COMM	STORES	GENERAL
Duffy	10,989,604	-	-	329,688	219,792	2,197,921	2,197,921	109,896	4,395,842	1,538,545
Kenmount Rd	5,876,291	-	305,567	458,351	740,413	311,443	135,155	129,278	-	3,796,084
Carbonear	1,390,362	-	-	69,518	-	486,627	250,265	-	347,591	236,362
Salt Pond	656,398	-	-	32,820	-	229,739	118,152	-	164,100	111,588
Gander	1,372,379	-	-	68,619	-	480,333	247,028	-	343,095	233,304
Clareville	1,872,961	-	-	93,648	-	655,536	337,133	-	468,240	318,403
Grand Falls	400,702	-	-	20,035	-	140,246	72,126	-	100,176	68,119
Corner Brook	760,486	-	-	38,024	-	266,170	136,887	-	190,122	129,283
Stephenville	1,129,556	-	-	56,478	-	395,345	203,320	-	282,389	192,025
Sub Total	24,448,739	-	305,567	1,167,181	960,205	5,163,360	3,697,987	239,174	6,291,553	6,623,712
% Split (Excl. Stores & Gen.)	100%	0%	3%	10%	8%	45%	32%	2%		

**NEWFOUNDLAND POWER
COST OF SERVICE STUDY
AS OF DECEMBER 31, 2001**

COST ALLOCATION OF GENERAL PROPERTY - OTHER

2 - Stores Equipment Based Allocation of Inventory for 2001.

	TOTAL	SCC	PRODUCTION	TRANSMISS	SUBSTN	DISTR	CUSTOMER	COMM	STORES	GENERAL
2001 Splits	100%		4%	17%	11%	67%				

3 - Shop Equipment includes transformer shop, property maintenance shops, cafeteria, possibly some from Vehicle Washing Equip. Alloc. 100% to General

	TOTAL	SCC	PRODUCTION	TRANSMISS	SUBSTN	DISTR	CUSTOMER	COMM	STORES	GENERAL
Allocation										100%

4 - Laboratory and Test Equip. allocated based on , St. Johns' 20% Distribution Metering, 40% head office engineering related and 40% regional engineering related.
The 20% distribution metering based on detail from the 1997 study while the remainder split between head office engineering and regional engineering.
The regional portion is allocated on plant split between transmission and distribution. The head office split based on Kenmount Road Building allocation less customer and general. A variety of electrical testing equipment for use in analysing the the power system, including the meter shop and rubber glove testing.

	TOTAL	SCC	PRODUCTION	TRANSMISS	SUBSTN	DISTR	CUSTOMER	COMM	STORES	GENERAL
St. John's Portion of Cost										
Distribution Metering	20%					100%				
Head office Eng	40%		16%	24%	38%	16%		7%		
Regional Eng	40%		0%	13%	0%	87%		0%		
Weighted Splits	100%		6%	15%	15%	61%		3%		

5 - Engineering Equ. allocated based on fixed plant split for Production, Transmission, Substations & Distribution.
Surveying Equipment, Drafting Equipment, and Some Thermo Scanning Equipment

	TOTAL	SCC	PRODUCTION	TRANSMISS	SUBSTN	DISTR	CUSTOMER	COMM	STORES	GENERAL
Fixed Plant 2001	849,864,694	-	110,422,595	80,630,420	105,249,217	553,562,462				
% Split			13%	9%	12%	65%				

6 - Miscellaneous equipment is Tools and Equipment associated with transmission and distribution construction.

	TOTAL	SCC	PRODUCTION	TRANSMISS	SUBSTN	DISTR	CUSTOMER	COMM	STORES	GENERAL
2001 Fixed Plant Splits	634,192,882			80,630,420		553,562,462				
% Split	100%			13%		87%				

**NEWFOUNDLAND POWER
COST OF SERVICE STUDY
AS OF DECEMBER 31, 2001**

COST ALLOCATION OF SCADA RELATED PROPERTY AND EXPENSES¹

RTU	PRODUCTION	TRANSMISSION	DISTRIBUTION	TOTAL
ABC		0.10	0.90	1.00
BFS		0.67	0.33	1.00
BHD		0.10	0.90	1.00
BIG		0.10	0.90	1.00
BLK		0.67	0.33	1.00
BRB		0.67	0.33	1.00
BVS		0.67	0.33	1.00
CAB	0.33	0.33	0.33	1.00
CAR		0.67	0.33	1.00
CAT		0.67	0.33	1.00
CHA		0.67	0.33	1.00
CLV		0.67	0.33	1.00
COB		0.67	0.33	1.00
FPD	1.00			1.00
GAL		0.67	0.33	1.00
GAM		0.67	0.33	1.00
GAN		0.67	0.33	1.00
GBS		0.67	0.33	1.00
GDL		0.67	0.33	1.00
GFS		0.67	0.33	1.00
GOU		0.67	0.33	1.00
GRH	0.40	0.40	0.20	1.00
HCP	1.00			1.00
HCT	1.00			1.00
HGR		0.67	0.33	1.00
HUM		0.67	0.33	1.00
HWD		0.67	0.33	1.00
KBR		0.67	0.33	1.00
KEL		0.67	0.33	1.00
KEN		0.67	0.33	1.00
LAU		0.67	0.33	1.00
LBK	1.00			1.00
LGL		0.10	0.90	1.00
LLK		0.67	0.33	1.00
LOK	1.00			1.00
LWN	1.00			1.00
MAS		0.67	0.33	1.00
MOB	0.33	0.33	0.33	1.00

RTU	PRODUCTION	TRANSMISSION	DISTRIBUTION	TOTAL
MOL		0.67	0.33	1.00
MRP	1.00			1.00
MUN		0.67	0.33	1.00
NCH	0.33	0.33	0.33	1.00
OXF		0.67	0.33	1.00
PAB		0.10	0.90	1.00
PBK	1.00			1.00
PEP		0.67	0.33	1.00
PHR	0.67		0.33	1.00
RBH	1.00			1.00
RBK	0.33	0.33	0.33	1.00
ROB		0.10	0.90	1.00
ROP	1.00			1.00
RRD		0.67	0.33	1.00
SBK	1.00			1.00
SCR		0.67	0.33	1.00
SCV		0.67	0.33	1.00
SJM		0.67	0.33	1.00
SLA		0.67	0.33	1.00
SPO		0.67	0.33	1.00
SPT	1.00			1.00
STG		0.10	0.90	1.00
STV		0.67	0.33	1.00
STX		0.10	0.90	1.00
TCV	1.00			1.00
TOP	1.00			1.00
VIR		0.67	0.33	1.00
WAL		0.67	0.33	1.00
WBK	1.00			1.00
<u>TOTALS</u>	17.40	27.87	21.73	67.00
PERCENT	26.0%	41.6%	32.4%	100.0%

NOTES:

1 - Allocation based on a rough estimate of the relative number of SCADA points associated with each function. SCADA points associated with general items such as battery bank alarms are not included in the analysis.