Q. For the years 2002 through 2005, please provide Hydro's forecast capital spending by function (as detailed in the relevant capital budget approved by the Board) and actual capital spending by function for the same years. Please provide detailed discussion outlining the reasons for any variances.

A. See the following table showing Hydro's forecast capital spending by function for the years 2002 through 2005 as well as the actual capital spending by function for the same years.

Annually Hydro files a report with the Public Utilities Report itemizing Capital Expenditures showing variances and explanations. These reports for 2002 to 2005 are attached.

NEWFOUNDLAND & LABRADOR HYDRO

Capital Expenditures/Budgets 2002 - 2005
($000)

	BUDGET 2002	ACTUALS 2002	BUDGET 2003	ACTUALS 2003	BUDGET 2004	ACTUALS 2004	BUDGET 2005	ACTUALS 2005
GENERATION	7,098	5,233	6,075	5,572	4,659	4,443	10,301	9,352
TRANSMISSION & RURAL OPERATIONS	30,507	29,560	10,878	9,961	12,873	14,678	20,539	16,588
GENERAL PROPERTIES	6,055	5,424	18,169	16,973	12,903	8,863	15,920	7,909
CONTINGENCY FUND	1,000	0	1,000	0	1,000	0	1,000	103
TOTAL CAPITAL EXPENDITURES	44,660	40,217	36,122	32,506	31,435	27,984	47,760	33,952

NEWFOUNDLAND AND LABRADOR HYDRO
2002 CAPITAL EXPENDITURES
YEAR ENDING DECEMBER 31, 2002

Filed with the Public Utilities Board
February/2003

NEWFOUNDLAND AND LABRADOR HYDRO
2002 CAPITAL EXPENDITURES
For Year Ending December 31, 2002

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NEWFOUNDLAND & LABRADOR HYDRO

2002 CAPITAL EXPENDITURES - OVERVIEW

FOR THE QUARTER ENDING DECEMBER 31, 2002
($,000)

	Annual Budget 2002	4th Quarter Actuals 2002	Total Actual Expenditures 2002	Variance From 2002 Budget
GENERATION	6,635	3,452	4,765	(1,870)
TRANSMISSION	17,734	3,853	16,203	(1,531)
RURAL SYSTEMS	8,348	3,511	9,095	747
GENERAL PROPERTIES	6,055	3,189	5,424	(631)
CONTINGENCY FUND - 2001	92	7	77	(15)
ALLOWANCE FOR UNFORSEEN EVENTS	1,000	0	0	(1,000)
PROJECTS APPROVED BY PUB	4,539	4,293	4,441	(98)
NEW PROJECTS LESS THAN $ 50,000 APPROVED BY HYDRO	257	202	212	(45)
TOTAL CAPITAL BUDGET	44,660	18,507	40,217	(4,443)

Approved P.U. 30 (2001-2002)	27,138
Approved P.U. 31 (2001-2002)	731
Approved P.U. 1 (2002-2003)	466
Approved P.U. 20 (2002-2003)	503
Approved P.U. 7 (2002-2003)	8,896
Approved P.U. 28 (2002-2003) - Aliant Poles	3,570
Carryover Projects 2001 to 2002	3,099
New Projects Under $50,000 approved by Hydro	257
Total Approved Capital Budget	44,660

NEWFOUNDLAND & LABRADOR HYDRO

2002 CAPITAL EXPENDITURES - OVERVIEW

FOR THE QUARTER ENDING DECEMBER 31, 2002
($,000)

	Annual Budget 2002	4th Quarter Actuals 2002	Total Actual Expenditures 2002	Variance From 2002 Budget	Page Ref
GENERATION					
HYDRO PLANTS					
Construction Projects	4,779	2,738	3,876	(903)	4
Property Additions	164	135	136	(28)	4
Tools & Equipment	323	259	320	(3)	4
THERMAL PLANT					
Construction Projects	1,292	303	382	(910)	5
Tools & Equipment	77	17	51	(26)	5
TOTAL GENERATION	6,635	3,452	4,765	(1,870)	
TRANSMISSION					
REGIONAL OPERATIONS					
Construction Projects	71	12	64	(7)	6
Property Additions	69	12	87	18	6
Tools & Equipment	207	46	177	(30)	6
SYSTEM SECURITY & RELIABILITY IMPROVEMENTS	16,945	3,579	15,592	(1,353)	7
SYSTEM PERFORMANCE & PROTECTION	442	204	283	(159)	7
TOTAL TRANSMISSION	17,734	3,853	16,203	(1,531)	

NEWFOUNDLAND & LABRADOR HYDRO

2002 CAPITAL EXPENDITURES - OVERVIEW

FOR THE QUARTER ENDING DECEMBER 31, 2002
($,000)

	Annual Budget 2002	4th Quarter Actuals 2002	Total Actual Expenditures 2002	Variance From 2002 Budget	Page Ref
RURAL SYSTEMS					
REGIONAL OPERATIONS					
Construction Projects	6,645	2,868	6,955	310	9
Property Additions	38	1	16	(22)	10
Tools & Equipment	199	22	154	(45)	10
NEW POWER PLANTS	1,201	463	1,785	584	11
MAJOR UPGRADING					
Power Plants	59	0	0	(59)	11
METERING	206	157	185	(21)	11
TOTAL RURAL SYSTEMS	8,348	3,511	9,095	747	
GENERAL PROPERTIES					
INFORMATION SYSTEMS & TELECOMMUNICATIONS	3,765	2,290	3,498	(267)	13
ADMINISTRATIVE	2,290	899	1,926	(364)	13
TOTAL GENERAL PROPERTIES	6,055	3,189	5,424	(631)	
CONTINGENCY FUND	92	7	77	(15)	14
ALLOWANCE FOR UNFORSEEN EVENTS	1,000	0	0	(1,000)	14
PROJECTS APPROVED BY PUB ORDER	4,539	4,293	4,441	(98)	14
PROJECTS APPROVED FOR LESS THAN $ 50,000	257	202	212	(45)	14
TOTAL CAPITAL BUDGET	44,660	18,507	40,217	(4,443)	

NEWFOUNDLAND & LABRADOR HYDRO
GENERATION
2002 CAPITAL EXPENDITURES - DETAIL
FOR THE QUARTER ENDING DECEMBER 31, 2002
($,000)

PROJECT DESCRIPTION	Annual Budget 2002	4th Quarter Actuals 2002	Total Actual Expenditures 2002	Variance From 2002 Budget	Variance Explanation Reference
HYDRO PLANTS					
CONSTRUCTION PROJECTS					
Replace Halon 1301 Fire Protection Systems for Generation System	58	23	89	31	
Replace Halon 1301 Fire Protection Systems for Generation System	697	262	335	(362)	Note 1
Replace Unit 1 Exciter - Cat Arm	863	390	585	(278)	Note 2
Install 25 kV Distribution Line - Ebbegunbaeg	1,555	908	1,273	(282)	Note 3
Replace Governor Controls - Upper Salmon	606	463	595	(11)	
Replace Piping on Surge Tank 3 - Bay D' Espoir	326	194	300	(26)	
Upgrade Controls on Spherical Valve #5 - Bay D'Espoir	153	4	172	19	
Install Fault Recorder - Upper Salmon Generating Station	127	64	64	(63)	C/O
Install Intake Stoplogs - Paradise River	158	141	151	(7)	
Replace Control Cables - Bay D' Espoir	131	215	230	99	Note 4
Replace Sump Pump No. 2 at Powerhouse No. 1 - Bay D'Espoir	46	34	35	(11)	
Purchase Security Surveillance System - Bay D'Espoir	35	23	23	(12)	
Replace Trash Rack Differential System - Bay D'Espoir Intake	15	15	15	0	
Install Frazil Ice Detection System - Intake #4 - Bay D'Espoir	9	2	9	0	
TOTAL CONSTRUCTION PROJECTS	4,779	2,738	3,876	(903)	
PROPERTY ADDITIONS					
Replace Ventilation System at Powerhouse No.1 - Bay D' Espoir	164	135	136	(28)	
TOTAL PROPERTY ADDITIONS	164	135	136	(28)	
TOOLS & EQUIPMENT					
Purchase Track Machine - Cat Arm	177	180	180	3	
Purchase & Replace Tools & Equipment Less than $50,000	146	79	140	(6)	
TOTAL TOOLS & EQUIPMENT	323	259	320	(3)	

NEWFOUNDLAND & LABRADOR HYDRO
GENERATION
2002 CAPITAL EXPENDITURES - DETAIL
FOR THE QUARTER ENDING DECEMBER 31, 2002
($,000)

PROJECT DESCRIPTION	Annual Budget 2002	4th Quarter Actuals 2002	Total Actual Expenditures 2002	Variance From 2002 Budget	Variance Explanation Reference
THERMAL PLANT					
CONSTRUCTION PROJECTS					
Upgrade Oil Systems for Fire Protection on Unit No.2 - Holyrood	40	1	38	(2)	
Upgrade Oil Systems for Fire Protection on Unit No.1 - Holyrood	40	3	41	1	
Purchase and Install Continuous Emission Monitoring	801	128	132	(669)	C/O
Upgrade Oil Systems for Fire Protection on Unit No.3 - Holyrood	225	11	11	(214)	Note 5
Purchase and Install Closed Circuit Surveillance System - Holyrood	152	137	137	(15)	
Replace Turbine Electrohydraulic Control System - Unit No. 1 - Holyrood	34	23	23	(11)	C/O
TOTAL CONSTRUCTION PROJECTS	1,292	303	382	(910)	
TOOLS & EQUIPMENT					
Purchase & Replace Tools & Equipment Less than $50,000	77	17	51	(26)	
TOTAL TOOLS & EQUIPMENT	77	17	51	(26)	
TOTAL CONSTRUCTION PROJECTS	0	0	0	0	
TOTAL GENERATION	6,635	3,452	4,765	(1,870)	

NEWFOUNDLAND & LABRADOR HYDRO
TRANSMISSION
2002 CAPITAL EXPENDITURES - DETAIL
FOR THE QUARTER ENDING DECEMBER 31, 2002
($,000)

PROJECT DESCRIPTION	Annual Budget 2002	4th Quarter Actuals 2002	Total Actual Expenditures 2002	Variance From 2002 Budget	Variance Explanation Reference
REGIONAL OPERATIONS					
CONSTRUCTION PROJECTS					
CENTRAL REGION - TERMINALS					
Replace Instrument Transformers/Surge Arrestors - Central	71	12	64	(7)	
TOTAL CONSTRUCTION PROJECTS	71	12	64	(7)	
PRPOPERTY ADDITIONS					
CENTRAL REGION					
Pave Parking Area - Bishop's Falls Complex	69	12	87	18	
TOTAL PROPERTY ADDITIONS	69	12	87	18	
TOOLS & EQUIPMENT					
CENTRAL REGION					
Purchase & Replace Tools & Equipment Less than $ 50,000	207	46	177	(30)	
TOTAL TOOLS & EQUIPMENT	207	46	177	(30)	

NEWFOUNDLAND & LABRADOR HYDRO
TRANSMISSION
2002 CAPITAL EXPENDITURES - DETAIL
FOR THE QUARTER ENDING DECEMBER 31, 2002
($,000)

PROJECT DESCRIPTION	Annual Budget 2002	4th Quarter Actuals 2002	Total Actual Expenditures 2002	Variance From 2002 Budget	Variance Explanation Reference
SYSTEM SECURITY & RELIABILITY IMPROVEMENTS					
Upgrade TL227 - (69kv Berry Hill - Daniels Harbour) - 2001	427	(63)	466	39	
Upgrade TL242 - (Holyrood - Hardwoods)	8,814	518	7,580	(1,234)	Note 6
Upgrade TL236 - (Hardwoods - Oxen Pond)	5,246	2,245	5,149	(97)	Note 7
Upgrade TL262 - (69kv Daniels Harbour - Peter's Barren)	420	(29)	457	37	
Upgrade TL227 - (69kv Berry Hill - Daniels Harbour)	496	352	654	158	C/O
Replacement of Insulators - TL226 - (69kV Deer Lake - Berry Hill)	224	232	253	29	
Replacement of Insulators - TL229 - (69kV Wiltondale - Glenburnie)	145	44	87	(58)	Note 8
Replacement of Insulators - TL211 (230kV Massey Drive - Bottom Brook)	570	226	465	(105)	Note 9
Replacement of Insulators - TL228 (230kV Buchans - Massey Drive)	450	51	401	(49)	C/O
Replacement of Poles TL215 - (69kV Doyles - Port aux Basques)	138	3	80	(58)	Note 10
Uprate of TL203- (230kV Sunnyside - Western Avalon)	15	0	0	(15)	C/O
TOTAL SECURITY & RELIABILITY IMPROVEMENTS	16,945	3,579	15,592	(1,353)	
SYSTEM PERFORMANCE & PROTECTION					
Purchase and Install 230kV Recloser PLC Refit (L05L35) - Stony Brook T.S.	42	12	29	(13)	
Purchase and Install Remote Communication Equipment - BUC & STB	51	21	48	(3)	
Purchase and Install Breaker Failure Protection Addition - BBK, WAV & HRD	229	68	97	(132)	Note 11
Purchase and Install Digital Fault Recorder - Stony Brook	92	81	87	(5)	
Purchase Metering Spares - Meter Shop - Hydro Place	28	22	22	(6)	
TOTAL SYSTEM PERFORMANCE & PROTECTION	442	204	283	(159)	
TOTAL TRANSMISSION	17,734	3,853	16,203	(1,531)	

NEWFOUNDLAND & LABRADOR HYDRO
RURAL SYSTEMS
2002 CAPITAL EXPENDITURES - DETAIL
FOR THE QUARTER ENDING DECEMBER 31, 2002
($,000)

PROJECT DESCRIPTION	Annual Budget 2002	4th Quarter Actuals 2002	Total Actual Expenditures 2002	Variance From 2002 Budget	Variance Explanation Reference
REGIONAL OPERATIONS					
CONSTRUCTION PROJECTS					
CENTRAL REGION - DISTRIBUTION					
Replace Poles - South Brook and King's Point System	197	(8)	179	(18)	
Provide Service Extensions - Central	331	304	631	300	Note 12
Upgrade Distribution Systems - Central	551	207	429	(122)	Note 13
Replace Insulators - English Harbour West System	669	143	391	(278)	Note 14
Replace Insulators - South Brook System	317	44	284	(33)	
Replace Conductor/Poles - Burgeo	300	27	244	(56)	Note 15
Purchase and Install Voltage Regulators - Barachoix	112	20	88	(24)	
Replace Transformers - Burlington Substation	149	7	79	(70)	Note 16
CENTRAL REGION - GENERATION					
Replace 136kW Diesel Unit No. 278 - McCallum	56	0	0	(56)	Note 17
Replace 250kW Diesel Unit No. 2027 - McCallum	55	0	0	(55)	Note 18
Replace 136kW Diesel Unit No. 279 - Grey River	307	142	170	(137)	Note 19
NORTHERN REGION - DISTRIBUTION					
Provide Service Extensions - Northern	327	200	530	203	Note20
Upgrade Distribution System - Northern	614	283	803	189	Note 21
Upgrade Distribution Lines - St. Anthony Distribution System	206	17	197	(9)	
Relocation of Line - Cook's Harbour	556	174	480	(76)	Note 22
Replace Corroded Transformers - Northern	276	31	209	(67)	Note 23
Upgrade Distribution Line - Goose Cove	87	33	37	(50)	Note 24
NORTHERN REGION - GENERATION					
Replace 136kW Diesel Unit No. 266 - Williams Harbour	11	0	0	(11)	

NEWFOUNDLAND & LABRADOR HYDRO
RURAL SYSTEMS
2002 CAPITAL EXPENDITURES - DETAIL
FOR THE QUARTER ENDING DECEMBER 31, 2002
($,000)

PROJECT DESCRIPTION	Annual Budget 2002	4th Quarter Actuals 2002	Total Actual Expenditures 2002	Variance From 2002 Budget	Variance Explanation Reference
REGIONAL OPERATIONS					
CONSTRUCTION PROJECTS					
LABRADOR REGION - DISTRIBUTION & TERMINALS					
Provide Service Extensions - Labrador	323	413	787	464	Note 25
Upgrade Distribution Systems - Labrador	165	215	443	278	Note 26
Replace Battery Charger & Batteries System - Quartzite Substation - Lab. City	9	6	7	(2)	
LABRADOR REGION - GENERATION					
Replace 300kW Diesel Unit No. 288 - Black Tickle	328	226	298	(30)	
Replace 250kW Diesel Unit No. 293 - Rigolet	310	217	291	(19)	
Upgrade Fuel Storage - Nain	339	132	338	(1)	
Purchase and Install Fire Alarm System - Black Tickle	50	35	40	(10)	
TOTAL CONSTRUCTION PROJECTS	6,645	2,868	6,955	310	

NEWFOUNDLAND & LABRADOR HYDRO
RURAL SYSTEMS
2002 CAPITAL EXPENDITURES - DETAIL
FOR THE QUARTER ENDING DECEMBER 31, 2002
($,000)

PROJECT DESCRIPTION	Annual Budget 2002	4th Quarter Actuals 2002	Total Actual Expenditures 2002	Variance From 2002 Budget	Variance Explanation Reference
REGIONAL OPERATIONS					
PROPERTY ADDITIONS					
NORTHERN REGION					
LABRADOR REGION					
Purchase Approved PCB Storage Container - Happy Valley	20	0	0	(20)	
Construct Storage Shed - Rigolet	18	1	16	(2)	
TOTAL PROPERTY ADDITIONS	38	1	16	(22)	
TOOLS & EQUIPMENT					
CENTRAL REGION					
Purchase & Replace Tools & Equipment Less than $ 50,000	61	10	58	(3)	
NORTHERN REGION					
Purchase & Replace Tools & Equipment Less than $ 50,000	85	0	81	(4)	
LABRADOR REGION					
Purchase & Replace Tools & Equipment Less than $ 50,000	40	12	15	(25)	
METERING					
Purchase & Replace Tools & Equipment Less than $ 50,000	13	0	0	(13)	
TOTAL TOOLS & EQUIPMENT	199	22	154	(45)	

NEWFOUNDLAND & LABRADOR HYDRO
RURAL SYSTEMS
2002 CAPITAL EXPENDITURES - DETAIL
FOR THE QUARTER ENDING DECEMBER 31, 2002
($,000)

PROJECT DESCRIPTION	Annual Budget 2002	4th Quarter Actuals 2002	Total Actual Expenditures 2002	Variance From 2002 Budget	Variance Explanation Reference
NEW POWER PLANTS					
Construct New Diesel Plant - Nain	1,201	463	1,785	584	Note 27
TOTAL NEW POWER PLANTS	1,201	463	1,785	584	
MAJOR UPGRADING					
POWER PLANTS					
Upgrade Diesel Plant - St. Lewis	59	0	0	(59)	Note 28
TOTAL POWER PLANTS	59	0	0	(59)	
METERING					
Purchase Meters & Equipment - TRO System	172	157	185	13	
Purchase Metering Tanks - TRO System	34	0	0	(34)	
TOTAL METERING	206	157	185	(21)	
TOTAL RURAL SYSTEMS	8,348	3,511	9,095	747	

NEWFOUNDLAND & LABRADOR HYDRO
GENERAL PROPERTIES
2002 CAPITAL EXPENDITURES - DETAIL
FOR THE QUARTER ENDING DECEMBER 31, 2002
($,000)

PROJECT DESCRIPTION	Annual Budget 2002	4th Quarter Actuals 2002	Total Actual Expenditures 2002	Variance From 2002 Budget	Variance Explanation Reference
INFORMATION SYSTEMS & TELECOMMUNICATIONS					
SOFTWARE APPLICATIONS					
INFRASTRUCTURE REPLACEMENT					
Acquire Document Management & Imaging System	104	0	0	(104)	C/O
NEW INFRASTRUCTURE					
Purchase Additional Corporate Applications	517	426	441	(76)	C/O
TOTAL SOFTWARE APPLICATIONS	621	426	441	(180)	
COMPUTER OPERATIONS					
INFRASTRUCTURE REPLACEMENT					
Purchase and Install Uninterruptible Power Supply - Computer Room	70	73	73	3	
Replacement of Printers	130	65	133	3	
Purchase of Existing AS400 Computers and Additional Disk Space	143	67	142	(1)	
NEW INFRASTRUCTURE					
Provide Three LCD Projectors - Hydro Place	39	39	39	0	
UPGRADE OF TECHNOLOGY					
Replacement of Desktop Peripherals	18	18	18	0	
TOTAL COMPUTER OPERATIONS	400	262	405	5	

NEWFOUNDLAND & LABRADOR HYDRO
GENERAL PROPERTIES
2002 CAPITAL EXPENDITURES - DETAIL
FOR THE QUARTER ENDING DECEMBER 31, 2002
($,000)

PROJECT DESCRIPTION	Annual Budget 2002	4th Quarter Actuals 2002	Total Actual Expenditures 2002	Variance From 2002 Budget	Variance Explanation Reference
INFORMATION SYSTEMS & TELECOMMUNICATIONS					
NETWORK SERVICES					
INFRASTRUCTURE REPLACEMENT					
Replace Datalok Alarm & Monitoring System	419	373	422	3	
Replace Powerline Carrier Equipment - Transmission System - West Coast	651	235	650	(1)	
Replace Teleprotection - Stony Brook - Grand Falls Frequency Converter	58	3	48	(10)	
Replace UHF Radio - Upper Salmon	556	560	594	38	
Complete Microwave Radio System Interconnection	269	108	208	(61)	C/O
Replace Remote Terminal Unit for Hydro - Phase 3	311	14	311	0	
UPGRADE OF TECHNOLOGY					
Provide Global Positioning System Time Synchronization - Phase 2	211	69	165	(46)	C/O
Install Interactive Voice Response System - Hydro Place	171	169	169	(2)	
Replace Telephone Isolation Equipment - Sunnyside & Western Avalon	52	44	51	(1)	
Upgrade Site Grounding at Telecontrol Site - Phase 3	46	27	34	(12)	
TOTAL NETWORK SERVICES	2,744	1,602	2,652	(92)	
TOTAL INFORMATION SYSTEMS & TELECOMMUNICATIONS	3,765	2,290	3,498	(267)	
ADMINISTRATIVE					
VEHICLES					
Replace Vehicles - 2001	291	0	319	28	
Replace Vehicles - 2002	1,897	874	1,509	(388)	C/O
ADMINISTRATION					
Purchase & Replace Admin Office Equip less than $50,000	102	25	98	(4)	
TOTAL ADMINISTRATIVE	2,290	899	1,926	(364)	
TOTAL GENERAL PROPERTIES	6,055	3,189	5,424	(631)	

NEWFOUNDLAND & LABRADOR HYDRO
OTHER APPROVED FUNDS
2002 CAPITAL EXPENDITURES - DETAIL
FOR THE QUARTER ENDING DECEMBER 31, 2002
($,000)

PROJECT DESCRIPTION	Annual Budget 2002	4th Quarter Actuals 2002	Total Actual Expenditures 2002	Variance From 2002 Budget	Variance Explanation Reference
CONTINGENCY FUND - 2001					
Replacement of Units 1 & 2 Battery Charger - Holyrood	67	7	62	(5)	
Replace Generator, Unit #561 - Norman Bay	25	0	15	(10)	
TOTAL CONTINGENCY FUND - 2001	92	7	77	(15)	
ALLOCATION FOR UNFORSEEN EVENTS					
Allocation for Unforseen Events	1,000	0	0	(1,000)	Note 29
TOTAL ALLOCATION FOR UNFORSEEN EVENTS	1,000	0	0	(1,000)	
PROJECTS APPROVED BY PUB					
Rewind Corner Brook Frequency Converter	466	295	442	(24)	
Replacement of Sewage Disposal System - Holyrood	352	355	356	4	
Replace Diesel Unit #2006 with Unit #2052 - Cartwright	151	73	73	(78)	C/O
Purchase of Poles from Aliant	3,570	3,570	3,570	0	
TOTAL PROJECTS APPROVED BY PUB	4,539	4,293	4,441	(98)	
NEW PROJECTS LESS THAN $ 50,000 APPROVED BY HYDRO					
High Pressure Air Compressors for Bay D'Espoir	44	48	50	6	
Corner Brook Frequency Converter Replace System Air Dryer	6	0	8	2	
Replace SO2 Analyzer	17	20	20	3	
Relocation of Diesel - Bishop's Falls to Davis Inlet	16	17	17	1	
Replacement of Structures on TL251 - Howley to Hampden	47	25	25	(22)	
Install Alternate 69kV Feed to Transformer SST-12 - Holyrood	45	12	12	(33)	C/O
Install Mid Span 2 Pole Structure TL223	6	4	4	(2)	
Relocation of Diesel Unit #2058 - Harbour Deep to Rencontre East	30	30	30	0	
Purchase Two Mobile Diesel Units - Rencontre East	46	46	46	0	
TOTAL NEW PROJECTS LESS THAN $ 50,000 APPROVED BY HYDRO	257	202	212	(45)	

2002 CAPITAL PROJECTS OVER $50,000
VARIANCE EXPLANATIONS

GENERATION:

1. **Replace Halon 1301 Fire Protection Systems for Generation System**

   Competitive tendering for a three (3) year Halon Replacement in was completed 2000. The final phase, Phase III which was completed in 2002. The multi-year contract resulted in contract prices much lower than the original estimate.

2. **Replace Unit 1 Exciter - Cat Arm**

   The approved budget estimate was based on an ABB exciter type Unitrol P with custom designed software. Following a review of the functionality required at Cat Arm, it was decided to modify our plan and use replacement exciter ABB model type Unitrol F with standard software package and its cost is lower than the Unitrol P.

3. **Install 25kV Distribution Line - Ebbegunbaeg**

   As a result of lower internal labour, project management and other costs, the overall project cost was less than budget.

4. **Replace Control Cables - Bay d'Espoir**

   The original scope included the replacement of two (2) control cables between Powerhouse # 1 and Intake # 2 and # 4 with fiber optic cables. Based on further evaluation, and to ensure reliability of the controls, fiber optic cable was also installed between Intake # 2 and Intake # 4. This along with higher fibre optic cable costs resulted in a total project cost higher than the budgeted amount.

5. **Upgrade Oil Systems for Fire Protection on Unit No. 3 - Holyrood**

   The original scope of work envisaged the installation of containment dykes, sprinkler coverage of the seal oil unit and major drainage modifications resulting from insurer's recommendation. This would have resulted in major logistical and safety problems for the maintenance staff. Following discussions with the insurers, the scope was reduced to satisfy the insurer's issues and alleviate safety concerns resulting in significant lower overall cost.

TRANSMISSION:

6. **Upgrade TL242 - (Holyrood - Hardwoods)**

The reason for this variance is lower than expected material cost, construction contract costs and related expenses in this variance.

7. **Upgrade TL236 (Hardwoods - Oxen Pond)**

A slight reduction in material costs resulted in a marginal cost underrun on this project.

8. **Replacement of Insulators - TL229 (69kV Wiltondale - Glenburnie)**

This project was constructed using internal forces; consequently, contract management and inspection costs were not required.

9. **Replacement of Insulators - TL211 (230kV Massey Drive - Bottom Brook)**

As a result of lower internal labour, project management and other costs, the overall project cost was less than budget.

10. **Replacement of Poles TL215 - (69kV Doyles - Port aux Basques)**

This project was constructed using internal forces; consequently, contract management and inspection costs were not required.

11. **Purchase and Install Breaker Failure Protection Addition - BBK, WAV & HRD**

The budget estimate was prepared based on new individual panel installations in each of the three stations involved. When the work was engineered in detail, it was found the relaying could be added using the existing panel space. Also, the scope of work required in each station, was less than estimated.

RURAL SYSTEM:

12. **Provide Service Extensions - Central**

The increase is primarily due to a higher than normal number of service extension requests from customers.

13. **Upgrade Distribution Systems - Central**

Distribution Upgrading for 2002 was less than budgeted due to favorable weather conditions and fewer unforeseen events than in a normal year.

14. **Replace Insulators - English Harbour West System**

This project was budgeted to be done under energized line conditions. However, by using a mobile diesel unit to service the community, construction was completed under de-energized conditions resulting in a much lower contract price.

15. **Replace Conductor/Poles - Burgeo**

This project was constructed using internal forces; consequently contract management and inspection costs were not required.

16. **Replace Transformers - Burlington Substation**

The original budget was based on installing a three-phase transformer on a concrete foundation in the existing station, which would have involved grounding and fencing upgrades. During detailed design, it was decided to install three single-phase transformers on the existing transformer structure which resulted in reduced costs for the project.

17. **Replace 136kW Diesel Unit No. 278 - McCallum**

This project was budgeted as a multi-year project in 2001 and 2002. It was completed ahead of schedule in 2001.

18. **Replace 250kW Diesel Unit No. 2027 - McCallum**

This project was budgeted as a multi-year project in 2001 and 2002. It was completed ahead of schedule in 2001.

RURAL SYSTEM: (cont'd.)

19. **Replace 136kW Diesel Unit No. 279 - Grey River**

Use of an existing generator and switchgear resulted in lower equipment and other related costs.

20. **Provide Service Extensions - Northern**

The increase is primarily due to a higher than normal number of service extension requests from customers.

21. **Upgrade Distribution System - Northern**

The increase is primarily due to an increase in unforeseen distribution upgrading work in 2002, including a severe sleet storm in May, which affected St. Anthony and coastal Labrador. Total cost of that storm was $182,095.

22. **Relocation of Line - Cook's Harbour**

Favourable material prices combined with an improved construction schedule resulted in lower overall project costs.

23. **Replace Corroded Transformers - Northern**

The cost reduction was realized because the units to be replaced were of lower capacity than anticipated. Also, several units were replaced during a single trip resulting in lower installation costs.

24. **Upgrade Distribution Line - Goose Cove**

A favourable construction contract bid and improved construction schedule resulted in lower overall project cost.

25. **Provide Service Extensions - Labrador**

The increase is primarily due to a higher than normal number of service extension requests from customers. Included was the development of a subdivision in Happy Valley for $145,935 and an extension to a new school in Happy Valley for $47,831. These projects were unknown prior to the submission of the 2002 Budget.

RURAL SYSTEM: (cont'd.)

26. Upgrade Distribution Systems - Labrador

This increase is primarily due to an increase in unforeseen distribution upgrading work in 2002, including a severe ice storm in Black Tickle at a cost of $130,206.

27. Construct New Diesel Plant - Nain

The increase in costs to this project is a result of changes to the design / supply / install contract for the new plant, as well as additional equipment requirements. Also, completion of the project was 10 months later than scheduled. Associated with these changes, additions and delays, are the corresponding additional costs for Hydro's internal engineering, project management, overheads and interest during construction.

28. Upgrade Diesel Plant - St. Lewis

The 2002 budget amount was intended to cover preliminary engineering required to define and recommend options for the plant upgrade which was to be done in the following year, 2003. The upgrade has been deferred to coincide with diesel unit replacements for St. Lewis now scheduled for 2006.

OTHER APPROVED FUNDS:

29. Allowance for Unforeseen Events:

There were no capital projects during 2002 that met the conditions imposed by the Board in P.U. 7 (2002 - 2003) for inclusion in the expenditure category.

NEWFOUNDLAND AND LABRADOR HYDRO
2003 CAPITAL EXPENDITURES
YEAR ENDING DECEMBER 31, 2003

Filed with the Public Utilities Board
February/2004

NEWFOUNDLAND AND LABRADOR HYDRO
2003 CAPITAL EXPENDITURES
For Year Ending December 31, 2003

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NEWFOUNDLAND & LABRADOR HYDRO

2003 CAPITAL EXPENDITURES - OVERVIEW

FOR THE QUARTER ENDING DECEMBER 31, 2003
($,000)

	Approved Budget 2003	4th Quarter Actuals 2003	Total Actual Expenditures 2003	Variance From 2003 Budget
GENERATION	5,704	1,930	5,281	(423)
TRANSMISSION & RURAL OPERATIONS	10,276	3,976	9,497	(779)
GENERAL PROPERTIES	17,869	6,760	16,848	(1,021)
ALLOWANCE FOR UNFORESEEN EVENTS	1,000	0	0	(1,000)
PROJECTS APPROVED BY PUB	977	331	624	(353)
NEW PROJECTS LESS THAN $50,000 APPROVED BY HYDRO	296	120	256	(40)
TOTAL CAPITAL BUDGET	36,122	13,117	32,506	(3,616)

Approved P. U. 29 (2002-2003)	33,070
Approved P. U. 3 (2003)	281
Approved P. U. 12 (2003)	138
Approved P. U. 20 (2003)	7
Approved P. U. 31 (2003)	511
Carryover Projects 2002 to 2003	1,852
New Projects Under $50,000 Approved by Hydro	263
TOTAL APPROVED CAPITAL BUDGET	36,122

NEWFOUNDLAND & LABRADOR HYDRO

2003 CAPITAL EXPENDITURES - OVERVIEW

FOR THE QUARTER ENDING DECEMBER 31, 2003
($,000)

	Approved Budget 2003	4th Quarter Actuals 2003	Total Actual Expenditures 2003	Variance From 2003 Budget	Page Ref
GENERATION					
HYDRO PLANTS					
Construction Projects	773	245	767	(6)	4
Property Additions	327	111	224	(103)	4
Tools & Equipment	117	34	76	(41)	4
THERMAL PLANT					
Construction Projects	2,423	1,252	2,192	(231)	5
Property Additions	1,991	237	1,951	(40)	5
Tools & Equipment	73	51	71	(2)	5
TOTAL GENERATION	5,704	1,930	5,281	(423)	
TRANSMISSION & RURAL OPERATIONS					
TRANSMISSION	782	324	1,065	283	6
SYSTEM PERFORMANCE & PROTECTION	546	354	534	(12)	6
TERMINALS	581	363	501	(80)	6
DISTRIBUTION	6,685	2,372	6,330	(355)	7
GENERATION	681	347	497	(184)	7
GENERAL					
Metering	102	67	96	(6)	7
Properties	49	0	112	63	7
Tools & Equipment	850	149	362	(488)	7
TOTAL TRANSMISSION & RURAL OPERATIONS	10,276	3,976	9,497	(779)	

NEWFOUNDLAND & LABRADOR HYDRO

2003 CAPITAL EXPENDITURES - OVERVIEW

FOR THE QUARTER ENDING DECEMBER 31, 2003
($,000)

	Approved Budget 2003	4th Quarter Actuals 2003	Total Actual Expenditures 2003	Variance From 2003 Budget	Page Ref
GENERAL PROPERTIES					
INFORMATION SYSTEMS & TELECOMMUNICATIONS	15,536	6,228	15,038	(498)	8
ADMINISTRATIVE	2,333	532	1,810	(523)	10
TOTAL GENERAL PROPERTIES	17,869	6,760	16,848	(1,021)	
ALLOWANCE FOR UNFORESEEN EVENTS	1,000	0	0	(1,000)	11
PROJECTS APPROVED BY PUB	977	331	624	(353)	11
PROJECTS APPROVED FOR LESS THAN $50,000	296	120	256	(40)	11
TOTAL CAPITAL BUDGET	36,122	13,117	32,506	(3,616)	

NEWFOUNDLAND & LABRADOR HYDRO
GENERATION
2003 CAPITAL EXPENDITURES - DETAIL
FOR THE QUARTER ENDING DECEMBER 31, 2003
($,000)

PROJECT DESCRIPTION	Approved Budget 2003	4th Quarter Actuals 2003	Total Actual Expenditures 2003	Variance From 2003 Budget	Variance Explanation Reference
HYDRO PLANTS					
CONSTRUCTION PROJECTS					
Install Fault Recorder - Upper Salmon Generating Station	63	5	63	0	
Upgrade Controls Spherical Valve No. 1 - Bay d'Espoir	223	8	236	13	
Replace Vibration/Data System - Bay d'Espoir	153	179	179	26	
Replacement of Draft Tube Stoplogs at Paradise River	156	1	135	(21)	
Replace Fuel Storage Tanks at Burnt Spillway - Bay d' Espoir	97	31	96	(1)	
Install Early Warning System - Victoria Dam	40	2	35	(5)	
Frazil Ice Monitoring - Granite Canal	21	7	11	(10)	
Replace Gate Hoist No. 2 - Ebbegunbaeg Control Structure	7	2	2	(5)	
Replace Unit No. 7 Exciter - Bay d'Espoir	13	10	10	(3)	
TOTAL CONSTRUCTION PROJECTS	773	245	767	(6)	
PROPERTY ADDITIONS					
Replace Site Fencing - Bay d'Espoir	250	111	224	(26)	
Purchase and Install Security Locks at Hydro Plants	77	0	0	(77)	Note 1
TOTAL PROPERTY ADDITIONS	327	111	224	(103)	
TOOLS & EQUIPMENT					
Replace Loader/Backhoe - Bay d'Espoir	3	0	0	(3)	
Purchase & Replace Tools & Equipment Less than $50,000	114	34	76	(38)	
TOTAL TOOLS & EQUIPMENT	117	34	76	(41)	

NEWFOUNDLAND & LABRADOR HYDRO
GENERATION
2003 CAPITAL EXPENDITURES - DETAIL
FOR THE QUARTER ENDING DECEMBER 31, 2003
($,000)

PROJECT DESCRIPTION	Approved Budget 2003	4th Quarter Actuals 2003	Total Actual Expenditures 2003	Variance From 2003 Budget	Variance Explanation Reference
THERMAL PLANT					
CONSTRUCTION PROJECTS					
Purchase and Install Continuous Emission Monitoring	669	80	684	15	
Rep. Turbine Electrohydraulic Control Syst - Unit No.1 - HRD	965	709	980	15	
Purchase and Installation of a Neutralization Pit - Holyrood	343	177	177	(166)	Note 2
Purchase Mobile Ambient Monitoring System - Holyrood	184	164	172	(12)	
Flue Gas Particulate Removal Study - Holyrood	150	47	59	(91)	Note 3
Purch/Inst Partial Discharge Analysis Equip - Unit No. 1 - Holyrood	112	75	120	8	
TOTAL CONSTRUCTION PROJECTS	2,423	1,252	2,192	(231)	
PROPERTY ADDITIONS					
Upgrade Civil Structures - Holyrood	1,991	237	1,951	(40)	
TOTAL PROPERTY ADDITIONS	1,991	237	1,951	(40)	
TOOLS & EQUIPMENT					
Purchase & Replace Tools & Equipment Less than $50,000	73	51	71	(2)	
TOTAL TOOLS & EQUIPMENT	73	51	71	(2)	
TOTAL GENERATION	5,704	1,930	5,281	(423)	

NEWFOUNDLAND & LABRADOR HYDRO
TRANSMISSION & RURAL OPERATIONS
2003 CAPITAL EXPENDITURES - DETAIL
FOR THE QUARTER ENDING DECEMBER 31, 2003
($,000)

PROJECT DESCRIPTION	Approved Budget 2003	4th Quarter Actuals 2003	Total Actual Expenditures 2003	Variance From 2003 Budget	Variance Explanation Reference
TRANSMISSION					
Upgrade TL227 - (69 kV Berry Hill - Daniels Harbour)	179	9	263	84	Note 4
Replacement of Insulators TL228 (230kV Buchans - Massey Drive)	49	3	73	24	
Uprate TL203- (230kV Sunnyside - Western Avalon)	207	52	75	(132)	Note 5
Replace Insulators TL209 - (230kV Stephenville - Bottom Brook)	236	0	253	17	
Upgrade TL214 - (138kV Bottom Brook - Doyles)	111	260	401	290	Note 6
TOTAL TRANSMISSION	782	324	1,065	283	
SYSTEM PERFORMANCE & PROTECTION					
Upgrade Circuit Switcher South Brook Terminal Station	355	291	347	(8)	
Purchase and Install 138kV Breaker Fail Protection	82	35	99	17	
Upgrade Breaker Controls - SunnysideTerminal Station	33	16	18	(15)	
Replace Digital Fault Recorder - Holyrood Terminal Station	76	12	70	(6)	
TOTAL SYSTEM PERFORMANCE & PROTECTION	546	354	534	(12)	
TERMINALS					
Replace Fence - Holyrood Terminal Station	32	26	35	3	
Upgrade Access Road - Farewell Head Terminal Station	22	0	20	(2)	
Replace 125v Battery Banks	83	126	162	79	Note 7
Upgrade Station Services - Long Harbour Terminal Station	83	57	71	(12)	
Install Motor Drive Mechanisms on Disconnect Switches - Sunnyside T.S.	217	84	117	(100)	Note 8
Replace Surge Arrestors	69	32	36	(33)	
Replace Instrument Transformers	75	38	60	(15)	
TOTAL TERMINALS	581	363	501	(80)	

NEWFOUNDLAND & LABRADOR HYDRO
TRANSMISSION & RURAL OPERATIONS
2003 CAPITAL EXPENDITURES - DETAIL
FOR THE QUARTER ENDING DECEMBER 31, 2003
($,000)

PROJECT DESCRIPTION	Approved Budget 2003	4th Quarter Actuals 2003	Total Actual Expenditures 2003	Variance From 2003 Budget	Variance Explanation Reference
DISTRIBUTION					
Service Extensions	1,448	900	1,802	354	Note 9
Distribution Upgrades	1,476	473	1,658	182	Note 10
Upgrade Line - Little Bay Distribution System	317	(1)	294	(23)	
Upgrade Line - St. Anthony Distribution Systems	557	100	290	(267)	Note 11
Insulator Replacements	795	335	535	(260)	Note 12
Pole Replacements	852	151	676	(176)	Note 13
Protection Upgrades - Isolated Systems	720	184	593	(127)	Note 14
Replace Corroded Transformers	172	80	153	(19)	
Replace Voltage Regulators	176	0	142	(34)	
Protection Upgrade North Diesel Plant - Goose Bay	172	150	187	15	
TOTAL DISTRIBUTION	6,685	2,372	6,330	(355)	
GENERATION					
Install Nox Emission Monitor - McCallum	103	0	0	(103)	Note 15
Install Fire Alarm Systems	98	58	64	(34)	
Upgrade Service Cables	60	31	56	(4)	
Increase Generation - Mary's Harbour	212	198	272	60	Note 16
Fuel Storage Upgrades	208	60	105	(103)	Note 17
TOTAL GENERATION	681	347	497	(184)	
GENERAL					
METERING					
Purchase Meters & Equipment - Rural System	96	61	88	(8)	
Purchase Metering Spares - Bulk Electrical System	6	6	8	2	
TOTAL METERING	102	67	96	(6)	
PROPERTIES					
Construct Storage Shed - Harbour Breton	19	0	22	3	
Purchase Land - Mud Lake	30	0	90	60	Note 18
TOTAL PROPERTIES	49	0	112	63	
TOOLS & EQUIPMENT					
Purchase & Replace Tools & Equipment Less than $ 50,000	306	33	204	(102)	
Replace Light Duty Mobile Equipment Less than $50,000	544	116	158	(386)	
TOTAL TOOLS & EQUIPMENT	850	149	362	(488)	
TOTAL GENERAL	1,001	216	570	(431)	
TOTAL TRANSMISSION & RURAL OPERTIONS	10,276	3,976	9,497	(779)	

NEWFOUNDLAND & LABRADOR HYDRO
GENERAL PROPERTIES
2003 CAPITAL EXPENDITURES - DETAIL
FOR THE QUARTER ENDING DECEMBER 31, 2003
($,000)

PROJECT DESCRIPTION	Approved Budget 2003	4th Quarter Actuals 2003	Total Actual Expenditures 2003	Variance From 2003 Budget	Variance Explanation Reference
INFORMATION SYSTEMS & TELECOMMUNICATIONS					
SOFTWARE APPLICATIONS					
INFRASTRUCTURE REPLACEMENT					
Acquire Document Management & Imaging System	104	0	105	1	
Replace Energy Management System - Energy Control Centre	1,214	72	387	(827)	Note 19
NEW INFRASTRUCTURE					
Purchase Additional Corporate Applications	84	6	38	(46)	
Security Program Centralized Log Monitoring & Analysis System	57	71	71	14	
TOTAL SOFTWARE APPLICATIONS	1,459	149	601	(858)	
COMPUTER OPERATIONS					
INFRASTRUCTURE REPLACEMENT					
Enterprise Storage Management Infrastructure	2,049	1,997	2,001	(48)	
End User & Server Evergreen Program	893	33	911	18	
NEW INFRASTRUCTURE					
Peripheral Infrastructure Replacement	99	39	104	5	
TOTAL COMPUTER OPERATIONS	3,041	2,069	3,016	(25)	

NEWFOUNDLAND & LABRADOR HYDRO
GENERAL PROPERTIES
2003 CAPITAL EXPENDITURES - DETAIL
FOR THE QUARTER ENDING DECEMBER 31, 2003
($,000)

PROJECT DESCRIPTION	Approved Budget 2003	4th Quarter Actuals 2003	Total Actual Expenditures 2003	Variance From 2003 Budget	Variance Explanation Reference
INFORMATION SYSTEMS & TELECOMMUNICATIONS					
NETWORK SERVICES					
INFRASTRUCTURE REPLACEMENT					
Install New Microwave System Interconnection Between East/West Coast	8,734	2,880	8,912	178	Note 20
Replace UHF Radio Link - Abitibi - Stephenville	89	52	93	4	
Replace Powerline Carrier Equipment West Coast Transmission System	1,009	747	1,037	28	
Replace Voice, Data & Teleprotection Equipment - Upper Salmon Intake	88	(2)	104	16	
Upgrade Site Grounding at Telecontrol Site - Phase 4	48	21	57	9	
Replace Battery System - Multiple Sites	224	26	235	11	
Replace Remote Terminal Unit for Hydro - Phase 4	285	31	288	3	
NETWORK INFRASTRUCTURE					
Purchase Equipment for Physical Facilities Upgrade	71	44	81	10	
Deer Lake Building Improvements	103	39	168	65	Note 21
Upgrade Local Area Networks (LANs) - Multiple Sites	47	2	47	0	
UPGRADE OF TECHNOLOGY					
Provide Global Positioning System Time Synchronization - Phase 2	46	3	70	24	
Replacement of Operational Data & Voice Network - Phase I	292	167	329	37	
TOTAL NETWORK SERVICES	11,036	4,010	11,421	385	
TOTAL INFORMATION SYSTEMS & TELECOMMUNICATIONS	15,536	6,228	15,038	(498)	

NEWFOUNDLAND & LABRADOR HYDRO
GENERAL PROPERTIES
2003 CAPITAL EXPENDITURES - DETAIL
FOR THE QUARTER ENDING DECEMBER 31, 2003
($,000)

PROJECT DESCRIPTION	Approved Budget 2003	4th Quarter Actuals 2003	Total Actual Expenditures 2003	Variance From 2003 Budget	Variance Explanation Reference
ADMINISTRATIVE					
VEHICLES					
Replace Vehicles - 2002	498	0	482	(16)	
Replace Vehicles - Hydro System	1,584	442	1,138	(446)	Note 22
ADMINISTRATION					
Replace Engineering Wide Format Printing System	62	10	62	0	
Automatic Meter Reading (AMR) - Pilot Project	52	24	43	(9)	
Purchase & Replace Admin Office Equipment Less Than $50,000	137	56	85	(52)	
TOTAL ADMINISTRATIVE	2,333	532	1,810	(523)	
TOTAL GENERAL PROPERTIES	17,869	6,760	16,848	(1,021)	

NEWFOUNDLAND & LABRADOR HYDRO
OTHER APPROVED FUNDS
2003 CAPITAL EXPENDITURES - DETAIL
FOR THE QUARTER ENDING DECEMBER 31, 2003
($,000)

PROJECT DESCRIPTION	Approved Budget 2003	4th Quarter Actuals 2003	Total Actual Expenditures 2003	Variance From 2003 Budget	Variance Explanation Reference
ALLOCATION FOR UNFORESEEN EVENTS					
Allocation for Unforeseen Events	1,000	0	0	(1,000)	Note 23
TOTAL ALLOCATION FOR UNFORESEEN EVENTS	1,000	0	0	(1,000)	
PROJECTS APPROVED BY PUB					
Carryover Project					
Replace Diesel Unit #2006 with Unit #2052 - Cartwright	40	0	30	(10)	
Projects Approved in 2003					
Replace Timber Crib Headwall at Grey River Fish Compensation Structure	281	0	213	(68)	Note 24
Install Additional 90,000 Litre Fuel Storage - Rigolet	138	38	61	(77)	Note 25
TL #255 Reconfiguration - Grandy Brook to Hope Brook	306	231	252	(54)	Note 26
Load Research - Island Interconnected & Labrador Interconnected Systems	205	62	62	(143)	Note 27
Installation of Interconnection - Wind Generation - Ramea	98	9	9	(89)	Note 28
Customer Contribution	(98)	(9)	(9)	89	
Purchase/Install Transformer Addition - Happy Valley Terminal Station	7	0	6	(1)	
TOTAL PROJECTS APPROVED BY PUB	977	331	624	(353)	
NEW PROJECTS LESS THAN $50,000 APPROVED BY HYDRO					
Carryover Project					
Install Alternate 69kV Feed to Transformer SST-12 - Holyrood	33	1	35	2	
Projects Approved in 2003					
Purchase Auxiliary Cooling Water Pump - Holyrood	49	0	36	(13)	
Purchase 2 Global Positioning System Receivers	28	0	28	0	
Asset Management Integrity and Routing Project	47	24	45	(2)	
Replace Garage Septic System - Bay d'Espoir	8	0	7	(1)	
TL #215 Pole Replacement - Doyles to Port aux Basques	14	4	14	0	
TL #215 Pole Replacement - Doyles to Grand Bay	33	34	34	1	
Replace Diesel Generating Unit 228 - Makkovik	36	39	39	3	
Project Review - VHF Mobile Radio System	48	18	18	(30)	
TOTAL PROJECTS LESS THAN $50,000 APPROVED BY HYDRO	296	120	256	(40)	

1. **Purchase and Install Security Locks at Hydro Plants**

After further review of this project, it was decided that this should be incorporated into an overall corporate security study and thus this project has been cancelled.

2. **Purchase and Installation of a Neutralization Pit - Holyrood**

When the Holyrood Generating Station was constructed in the 1960s it was equipped with a concrete neutralizing tank which partially neutralized waste streams. The tank deteriorated and the waste streams were discharged directly to the environment. Hydro proposed to construct a new neutralizing tank, similar to the original, to permit partial neutralization of the wastewater streams and thereby improve the quality of the plant's wastewater discharged into the environment. To that end, a Capital Budget Proposal was submitted and approved for the construction of a new neutralization tank in 2003.

Early in 2003, Hydro initiated a study to review the characteristics of the wastewater streams which would enter the new neutralization tank, as part of the initial design phase of the project. Detail design calculations revealed that a neutralization tank would indeed improve the quality of wastewater entering the environment, however it would not improve it sufficiently to meet the requirements of the Provincial Environmental Control (Water and Sewage) Regulations. In fact, it was determined from laboratory testing that the chemical composition of the waste streams which would enter the neutralizing tank is quite complex, highly variable, and would require more sophisticated treatment than would be provided by a simple neutralization tank, which would require removal or major modifications in the future to adequately treat waste water streams.

Based on the complexity and variability of the waste water stream chemistry, it was decided to change the focus of this project from construction to investigation. Two composite waste water sampling units were purchased and installed to extract samples of the subject waste water

2. **(cont'd.)**

streams. A detailed and comprehensive sampling program will be implemented throughout the winter operating season of 2003/04 to obtain sufficient samples to determine the characterization of the wastewater streams under all operating conditions. A wastewater treatment consultant was engaged to assist in the establishment of sampling locations and to develop the sampling protocol. Samples gathered throughout the operating season will be subjected to a quantitative chemical and mass analysis. The result will provide a detailed profile of the wastewater streams, which will be used to develop a suitable design for a wastewater treatment strategy in the future.

The final project cost was reduced because of the change in the scope of the project as described above.

3. **Flue Gas Particulate Removal Study - Holyrood**

This project was initiated to investigate technologies to reduce air emissions from Holyrood Thermal Generating Station, including particulates, NOx, SOx and acid aerosols. To that end, the Capital Budget Proposal contained an allowance of $125,000 for consulting services. When Hydro began the study, a review of the direction that legislation was expected to take indicated that the study need not address NOx or acid aerosols, which significantly reduced the scope of study required of the consultant and the internal Hydro team. The internal study team found that they could perform much of the initial investigative work, further reducing the scope of work required of the consultant. The final cost of the work performed by the consultant was $48,000, a reduction of $77,000 from the original estimate.

4. **Upgrade TL227 - (69kV Berry Hill - Daniels Harbour)**

This project was started in 2002 and was originally scheduled to be finished in that year. However, before all the work was finished, problems occurred with the breaker at the Berry Hill Terminal Station. These breaker problems required that TL227 be put back in service and the remainder of the upgrade work be rescheduled. The amount shown budgeted in 2003 represents the amount of work that was rescheduled to 2003. The extra costs shown in the variance report represents those costs for the extra mobilization of the contractor, additional allowance for funds used during construction related to the delayed project completion date and contractor delays due to available outages on the system.

5. **Uprate TL203 (230kV Sunnyside - Western Avalon)**

The purpose of this project was to add structures to maintain ground clearances during certain loading conditions on this line. The budget was based on preliminary survey information obtained from maps which resulted in a design concept based on using deadend structures. When the detailed design was done and actual field information gathered, it was determined that the required clearances could be obtained using tangent structures rather than deadends. This simplified the design and resulted in the reduction in project costs.

6. **Upgrade TL214 - (138kV Bottom Brook - Doyles)**

The 2003 budget amount was for preliminary engineering. All materials for this project were intended to be purchased in 2004. The increase in 2003 expenditures is a result of materials being charged to this project before the end of the year. These materials were surplus from 2003 projects, that will be re-used on TL214. The transfer before the end of the year was necessary so that the other projects could be closed before year end.

7. **Replace 125V Battery Banks**

The scope of the budget was to replace stand-by batteries at Deer Lake, Howley and the Corner Brook Frequency Converter. After the budget was approved, it was determined that the battery at the Stephenville Gas Turbine also needed to be replaced. This was not foreseen at the time the budget was presented for approval. The battery at Stephenville is much larger than the units at the other three sites, and the resulting extra cost is the reason for the variance above the approved budget.

8. **Install Motor Drive Mechanisms on Disconnect Switches - Sunnyside T.S.**

The budget was based on a preliminary design concept and methodology. This concept and methodology were revised considerably as the detailed engineering progressed. The equipment and material costs were less than anticipated and the installation work proceeded simpler and faster than expected, so the overall project costs were reduced.

9. **Service Extensions**

The budgeted amount is an annual allotment based on the average of the annual expenditures for service extensions over the last five years. It is not based on a summary of specific project costs. The variance represents the amount by which the current year's service extensions and corresponding expenditures exceeded the average of the last five years.

10. **Distribution Upgrades**

The budgeted amount is an annual allotment based on the average of the annual expenditures for distribution upgrades over the last five years. It is not based on a summary of specific project costs. The variance represents the amount by which the current year's upgrades and corresponding expenditures exceeded the average of the last five years.

11. **Upgrade Line - St. Anthony Distribution Systems**

The budget proposal was based on the work being done under de-energised conditions using temporary generation. Following detailed design it was decided to do the work under energized conditions with limited customer outages. As well, with detailed design, the number of spoilers required was substantially reduced from what was proposed in the budget. The elimination of the temporary generation and the reduction in the scope of the work resulted in the reduction in the overall project costs.

12. **Insulator Replacements**

The reduction in costs compared to the approved budget are a result of favourable contract prices and modifications in the method for doing the work. The budget was based on prices for similar work in 2002, but the market conditions changed significantly from 2002 to 2003 and this resulted in lower tender amounts. Also, part of the work was done by internal forces under energized conditions. This eliminated the need for temporary generation and a construction inspector and thus added to the overall variance.

13. **Pole Replacements**

This reduction in costs compared to the approved budget are a result of favourable contract prices and modifications in the method for doing the work. The budget was based on prices for similar work in 2002, but the market conditions changed significantly from 2002 to 2003 and this resulted in lower tender amounts. Also, the contractor took a different approach to doing the work which resulted in a much shorter construction schedule. This shorter schedule reduced the inspection and contract administration costs and thus added to the overall variance.

14. **Protection Upgrades - Isolated Systems**

The scope of this project was to install either reclosers and/or instrument transformers and relays on twelve (12) isolated diesel systems. Each project was designed and managed separately and the reduction shown is evenly distributed over all twelve projects. The individual project reduction is a result of the costs for materials being lower than anticipated because of market conditions and value of the Canadian dollar. This combined with a marginal reduction in labour on each project resulted in the total costs reduction as shown.

15. **Install NOx Emission Monitor - McCallum**

The scope of this project was to install an emissions monitor to measure ground level concentrations from the diesel plant and validate the "ISC" dispersion modelling program and confirm compliance or non-compliance. Late in 2002 and early 2003 the provincial Department of Environment adopted the new "AERMOD" dispersion modelling program. Unlike the old model, this new program factors the effects of terrain and ozone levels into the dispersion modelling. The application of the new modelling software, negated the need for this project at this time.

16. **Increase Generation - Mary's Harbour**

The scope of the budget was to relocate the generation unit from the old Nain plant and re-install it at Mary's Harbour. When the detailed engineering was done, it was determined that the unit had to be overhauled before it could be re-installed. The extra cost for the overhaul is the reason for the variance above the approved expenditures.

17. **Fuel Storage Upgrades**

The approved budget was based on the purchase of new tanks for all three locations. In 2003 the diesel operations at Petites was decommissioned and the operations at Davis Inlet was significantly reduced such that fuel tanks at these sites became available for use at other sites. The reduction in costs was due to reusing the existing tanks as opposed to purchasing new ones.

18. **Purchase Land - Mud Lake**

The final negotiated price exceeded the budgeted amount.

19. **Replace Energy Management System - Energy Control Centre**

The contract will not be awarded until the end of 2004. The original estimate assumed a 2003 award. The total estimated capital cost anticipated upon project completion has not changed.

20. **Install New Microwave System Interconnection Between East/West Coast**

Civil costs increased because actual field conditions varied from those expected from the geotechnical survey.

21. **Deer Lake Building Improvements**

The actual labour required to install the pre-fab building was higher than the estimate.

22. **Replace Vehicles - Hydro System**

The 2003 budget was based on established replacement criteria and vehicle requirements. Based on this criteria, all vehicles would have been ordered and delivered in 2003 and there would have been no variance to the budget. However in 2003, the replacement criteria and vehicle requirements was reviewed and revised to better suit the operational needs of the company. Some vehicles were ordered later than was planned and will not be delivered until 2004. The budget variance represents the commitments made in 2003 that are payable in 2004 when the new vehicles are delivered.

23. **Allocation for Unforeseen Events**

There were no capital projects during 2003 that met the conditions imposed by the Board in P.U.7 (2002 - 2003) for inclusion in the expenditure category.

24. **Replace Timber Crib Headwall at Grey River Fish Compensation Structure**

The final cost was less than the approved budget because of more favourable permit arrangements with Federal Fisheries, a favourable tender from the contractor and site conditions being better than expected.

25. **Install Additional 90,000 Litre Fuel Storage - Rigolet**

The budget included the purchase of two (2) new 45,000 litre tanks. After the reduction of fuel requirements at Davis Inlet was confirmed, it was decided to use surplus tanks from that community.

26. **TL #255 Reconfiguration - Grandy Brook to Hope Brook**

The work was carried out using helicopter services. As a result of very favourable weather conditions, it was completed ahead of schedule.

27. **Load Research - Island Interconnected & Labrador Interconnected Systems**

The delay in receipt of meters from the supplier results in a 2004 project completion date.

28. **Installation of Interconnection - Wind Generation - Ramea**

The original plan by the customer, Frontier Energy Systems Inc, was to have the wind turbine operating in the fall of 2003. This has now been delayed until 2004.

NEWFOUNDLAND AND LABRADOR HYDRO

2004 CAPITAL EXPENDITURES

YEAR ENDING DECEMBER 31, 2004

Filed with the Public Utilities Board
February/2005

NEWFOUNDLAND AND LABRADOR HYDRO
2004 CAPITAL EXPENDITURES
For Year Ending December 31, 2004

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NEWFOUNDLAND & LABRADOR HYDRO

2004 CAPITAL EXPENDITURES - OVERVIEW

FOR THE QUARTER ENDING DECEMBER 31, 2004
($,000)

	PUB Approved Budget 2004	4th Quarter Actuals 2004	Total Actual Expenditures 2004	Variance From 2004 Budget
GENERATION	4,049	1,084	3,759	(290)
TRANSMISSION & RURAL OPERATIONS	11,999	4,166	14,298	2,299
GENERAL PROPERTIES	11,350	3,006	7,332	(4,018)
ALLOWANCE FOR UNFORESEEN EVENTS	1,000	0	0	(1,000)
PROJECTS APPROVED BY PUB	2,798	1,470	2,389	(409)
NEW PROJECTS LESS THAN $50,000 APPROVED BY HYDRO	239	103	206	(33)
TOTAL CAPITAL BUDGET	31,435	9,829	27,984	(3,451)

Approved PU 29 (2003)	27,316
Approved PU 5 (2004)	1,534
Approved PU 13 (2004)	303
Approved PU 16 (2004)	465
Approved PU 28 (2004)	258
Approved PU 34 (2004)	95
Carryover Projects	1,255
New Projects Under $ 50,000 Approved by Hydro	209
Revised TOTAL CAPITAL BUDGET	31,435

NEWFOUNDLAND & LABRADOR HYDRO

2004 CAPITAL EXPENDITURES - OVERVIEW

FOR THE QUARTER ENDING DECEMBER 31, 2004
($,000)

	PUB Approved Budget 2004	4th Quarter Actuals 2004	Total Actual Expenditures 2004	Variance From 2004 Budget
GENERATION				
HYDRO PLANTS				
Construction Projects	1,474	344	1,307	(167)
Tools & Equipment	194	30	189	(5)
THERMAL PLANT				
Construction Projects	2,281	697	2,215	(66)
Property Additions	78	7	8	(70)
Tools & Equipment	22	6	40	18
TOTAL GENERATION	4,049	1,084	3,759	(290)
TRANSMISSION & RURAL OPERATIONS				
TRANSMISSION	3,926	1,336	5,339	1,413
SYSTEM PERFORMANCE & PROTECTION	303	168	318	15
TERMINALS	1,690	307	1,548	(142)
DISTRIBUTION	5,153	2,153	6,337	1,184
GENERATION	238	70	220	(18)
GENERAL				
Metering	104	41	62	(42)
Properties	49	46	49	0
Tools & Equipment	536	45	425	(111)
TOTAL TRANSMISSION & RURAL OPERATIONS	11,999	4,166	14,298	2,299

NEWFOUNDLAND & LABRADOR HYDRO

2004 CAPITAL EXPENDITURES - OVERVIEW

FOR THE QUARTER ENDING DECEMBER 31, 2004
($,000)

	PUB Approved Budget 2004	4th Quarter Actuals 2004	Total Actual Expenditures 2004	Variance From 2004 Budget
GENERAL PROPERTIES				
INFORMATION SYSTEMS & TELECOMMUNICATIONS	8,512	2,619	4,928	(3,584)
ADMINISTRATIVE	2,838	387	2,404	(434)
TOTAL GENERAL PROPERTIES	11,350	3,006	7,332	(4,018)
ALLOWANCE FOR UNFORESEEN EVENTS	1,000	0	0	(1,000)
PROJECTS APPROVED BY PUB	2,798	1,470	2,389	(409)
PROJECTS APPROVED FOR LESS THAN $50,000	239	103	206	(33)
TOTAL CAPITAL BUDGET	31,435	9,829	27,984	(3,451)

NEWFOUNDLAND & LABRADOR HYDRO
GENERATION
2004 CAPITAL EXPENDITURES - DETAIL
FOR THE QUARTER ENDING DECEMBER 31, 2004
($,000)

PROJECT DESCRIPTION	PUB Approved Budget 2004	4th Quarter Actuals 2004	Total Actual Expenditures 2004	Variance From 2004 Budget	Variance Explanation Reference
HYDRO PLANTS					
CONSTRUCTION PROJECTS					
Replace Vibration/Data System - Bay D'Espoir	18	0	19	1	
Replace Unit 7 Exciter - Bay D'Espoir	760	(9)	639	(121)	Note 1
Replace Gate Hoist No. 2 - Ebbegunbaeg Control Structure	513	353	437	(76)	Note 2
Upgrade Controls Spherical Valve #3 - Bay D' Espoir	183	0	212	29	
TOTAL CONSTRUCTION PROJECTS	1,474	344	1,307	(167)	
TOOLS & EQUIPMENT					
Replace Loader/Backhoe - Bay d'Espoir	124	0	119	(5)	
Purchase & Replace Tools & Equipment Less than $50,000	70	30	70	0	
TOTAL TOOLS & EQUIPMENT	194	30	189	(5)	

NEWFOUNDLAND & LABRADOR HYDRO
GENERATION
2004 CAPITAL EXPENDITURES - DETAIL
FOR THE QUARTER ENDING DECEMBER 31, 2004
($,000)

PROJECT DESCRIPTION	PUB Approved Budget 2004	4th Quarter Actuals 2004	Total Actual Expenditures 2004	Variance From 2004 Budget	Variance Explanation Reference
THERMAL PLANT					
CONSTRUCTION PROJECTS					
Upgrade Control System - Holyrood	1,553	510	1,499	(54)	Note 3
Purch/Inst Ambient Monitoring System Enhancement	728	187	716	(12)	
TOTAL CONSTRUCTION PROJECTS	2,281	697	2,215	(66)	
PROPERTY ADDITIONS					
Upgrade Civil Structures - Holyrood	78	7	8	(70)	Note 4
TOTAL PROPERTY ADDITIONS	78	7	8	(70)	
TOOLS & EQUIPMENT					
Purchase & Replace Tools & Equipment Less than $50,000	22	6	40	18	
TOTAL TOOLS & EQUIPMENT	22	6	40	18	
TOTAL GENERATION	4,049	1,084	3,759	(290)	

NEWFOUNDLAND & LABRADOR HYDRO
TRANSMISSION & RURAL OPERATIONS
2004 CAPITAL EXPENDITURES - DETAIL
FOR THE QUARTER ENDING DECEMBER 31, 2004
($,000)

PROJECT DESCRIPTION	PUB Approved Budget 2004	4th Quarter Actuals 2004	Total Actual Expenditures 2004	Variance From 2004 Budget	Variance Explanation Reference
TRANSMISSION					
Upgrade TL214 - (138kV Bottom Brook - Doyles)	2,546	607	3,893	1,347	Note 5
Replace Insulators TL233 - (230kV Buchans - Bottom Brook)	1,055	489	1,114	59	Note 6
Replace Wood Poles - Transmission	325	240	332	7	
TOTAL TRANSMISSION	3,926	1,336	5,339	1,413	
SYSTEM PERFORMANCE & PROTECTION					
Purch/Install 138kV Breaker Fail Protection Addition - Deer Lake/Sunnyside	150	123	175	25	
Replace Digital Fault Recorder - BDE	77	18	61	(16)	
Purchase and Install Remote Relay Data Acquisition Equipment	46	4	39	(7)	
Upgrade Breaker Controls - Western Avalon & Holyrood Terminal Stations	30	23	43	13	
TOTAL SYSTEM PERFORMANCE & PROTECTION	303	168	318	15	
TERMINALS					
Purchase and Install Transformer Addition - Happy Valley Terminal Station	1,245	189	1,215	(30)	
Install Motor Drive Mechanisms on Disconnect Switches - West Coast	207	44	103	(104)	Note 7
Replace Instrument Transformers	77	25	65	(12)	
Replace Surge Arrestors	70	28	65	(5)	
Upgrade Breaker Controls - Sunnyside Terminal Station	15	0	7	(8)	
Replace Digital Fault Recorder - Holyrood Terminal Station	6	0	7	1	
Upgrade Station Services - Long Harbour TS	12	0	8	(4)	
Replace 125V Battery Banks - Bottom Brook and Holyrood Terminal Stations	58	21	78	20	
TOTAL TERMINALS	1,690	307	1,548	(142)	

NEWFOUNDLAND & LABRADOR HYDRO
TRANSMISSION & RURAL OPERATIONS
2004 CAPITAL EXPENDITURES - DETAIL
FOR THE QUARTER ENDING DECEMBER 31, 2004
($,000)

PROJECT DESCRIPTION	PUB Approved Budget 2004	4th Quarter Actuals 2004	Total Actual Expenditures 2004	Variance From 2004 Budget	Variance Explanation Reference
DISTRIBUTION					
Service Extensions	1,558	923	2,283	725	Note 8
Distribution Upgrades	1,471	835	2,670	1,199	Note 9
Pole Replacements	993	356	749	(244)	Note 10
Insulator Replacements	945	12	553	(392)	Note 11
Purchase and Install Recloser L6 - Bear Cove	85	14	36	(49)	
Replace Substation Transformer - Rigolet	76	11	29	(47)	
Purchase and Install Recloser L1 - Conche	25	2	17	(8)	
TOTAL DISTRIBUTION	5,153	2,153	6,337	1,184	
GENERATION					
Protection Upgrades - Isolated Systems	33	0	13	(20)	
Upgrade Generator Relaying - Happy Valley North Plant	170	55	176	6	
Purchase and Install P.T.'s - Ramea	35	15	31	(4)	
TOTAL GENERATION	238	70	220	(18)	
GENERAL					
METERING					
Purchase Meters & Equipment - TRO System	98	35	56	(42)	
Purchase Metering Spares - Bulk Electrical System	6	6	6	0	
TOTAL METERING	104	41	62	(42)	
PROPERTIES					
Survey of Hydro's Primary Distribution Line Right-of-Ways	49	46	49	0	
TOTAL PROPERTIES	49	46	49	0	
TOOLS & EQUIPMENT					
Purchase & Replace Tools & Equipment Less than $ 50,000 (Carryover 2003)	45	0	60	15	
Purchase & Replace Tools & Equipment Less than $ 50,000	102	12	90	(12)	
Replace Light Duty Mobile Equipment Less than $50,000	389	33	275	(114)	
TOTAL TOOLS & EQUIPMENT	536	45	425	(111)	
TOTAL GENERAL	689	132	536	(153)	
TOTAL TRANSMISSION & RURAL OPERATIONS	11,999	4,166	14,298	2,299	

NEWFOUNDLAND & LABRADOR HYDRO
GENERAL PROPERTIES
2004 CAPITAL EXPENDITURES - DETAIL
FOR THE QUARTER ENDING DECEMBER 31, 2004
($,000)

PROJECT DESCRIPTION	PUB Approved Budget 2004	4th Quarter Actuals 2004	Total Actual Expenditures 2004	Variance From 2004 Budget	Variance Explanation Reference
INFORMATION SYSTEMS & TELECOMMUNICATIONS					
SOFTWARE APPLICATIONS					
INFRASTRUCTURE REPLACEMENT					
Replace Energy Management System - Energy Control Centre	5,120	685	1,409	(3,711)	Note 12
NEW INFRASTRUCTURE					
Corporate Applications Environment	540	335	474	(66)	Note 13
Applications Enhancements	463	272	464	1	
Security Program - Centralized Log Monitoring & Analysis System	69	80	90	21	
Security Program - Secure Remote Access	75	80	86	11	
TOTAL SOFTWARE APPLICATIONS	6,267	1,452	2,523	(3,744)	
COMPUTER OPERATIONS					
INFRASTRUCTURE REPLACEMENT					
NEW INFRASTRUCTURE					
Peripheral Infrastructure Replacement	101	16	101	0	
TOTAL COMPUTER OPERATIONS	101	16	101	0	

NEWFOUNDLAND & LABRADOR HYDRO
GENERAL PROPERTIES
2004 CAPITAL EXPENDITURES - DETAIL
FOR THE QUARTER ENDING DECEMBER 31, 2004
($,000)

PROJECT DESCRIPTION	PUB Approved Budget 2004	4th Quarter Actuals 2004	Total Actual Expenditures 2004	Variance From 2004 Budget	Variance Explanation Reference
INFORMATION SYSTEMS & TELECOMMUNICATIONS					
NETWORK SERVICES					
INFRASTRUCTURE REPLACEMENT					
Replace Powerline Carrier Equipment - Transmission System - West Coast	391	98	396	5	
Replace Battery System - Multiple Sites - 2004	274	63	311	37	
Replace Remote Terminal Unit for Hydro - Phase 5	314	53	325	11	
Replace Telephone Isolation Equipment - Doyles	49	35	74	25	
Upgrade Site Grounding at Telecontrol Site - Phase 5	49	45	48	(1)	
NETWORK INFRASTRUCTURE					
Purchase Test Equipment	48	0	48	0	
Upgrade Local Area Networks (LANs) - Multiple Sites - 2004	48	25	50	2	
UPGRADE OF TECHNOLOGY					
Replacement of Operational Data & Voice Network - Phase II	971	832	1,052	81	Note 14
TOTAL NETWORK SERVICES	2,144	1,151	2,304	160	
TOTAL INFORMATION SYSTEMS & TELECOMMUNICATIONS	8,512	2,619	4,928	(3,584)	

NEWFOUNDLAND & LABRADOR HYDRO
GENERAL PROPERTIES
2004 CAPITAL EXPENDITURES - DETAIL
FOR THE QUARTER ENDING DECEMBER 31, 2004
($,000)

PROJECT DESCRIPTION	PUB Approved Budget 2004	4th Quarter Actuals 2004	Total Actual Expenditures 2004	Variance From 2004 Budget	Variance Explanation Reference
ADMINISTRATIVE					
VEHICLES					
Replace Vehicles - Hydro System - 2003	1,588	253	1,450	(138)	Note 15
Replace Vehicles - Hydro System - 2004	1,081	79	877	(204)	Note 16
ADMINISTRATION					
Purchase Cash Remittance Processor	60	22	22	(38)	
Electronic Metering Reading	36	30	36	0	
Purchase & Replace Admin Office Equip less than $50,000	73	3	19	(54)	
TOTAL ADMINISTRATIVE	2,838	387	2,404	(434)	
TOTAL GENERAL PROPERTIES	11,350	3,006	7,332	(4,018)	

NEWFOUNDLAND & LABRADOR HYDRO
OTHER APPROVED FUNDS
2004 CAPITAL EXPENDITURES - DETAIL
FOR THE QUARTER ENDING DECEMBER 31, 2004
($,000)

PROJECT DESCRIPTION	PUB Approved Budget 2004	4th Quarter Actuals 2004	Total Actual Expenditures 2004	Variance From 2004 Budget	Variance Explanation Reference
ALLOCATION FOR UNFORESEEN EVENTS					
Allocation for Unforeseen Events	1,000	0	0	(1,000)	Note 17
TOTAL ALLOCATION FOR UNFORESEEN EVENTS	1,000	0	0	(1,000)	
PROJECTS APPROVED BY PUB					
Carryover					
Load Research - Island and Labrador Interconnected Systems	143	32	127	(16)	
Wind Generation - Ramea	89	2	83	(6)	
Contribution	(89)	(12)	(83)	6	
New					
Upper Salmon Slope Stabilization	102	114	207	105	Note 18
Office Server & Productivity Tools Evergreen	639	541	609	(30)	
End User Evergreen Program	793	263	796	3	
Increase Generation - Port Hope Simpson	303	122	132	(171)	Note 19
Holyrood Marine Terminal - Security Upgrade	465	326	436	(29)	
Replacement of Diesel Unit -Hopedale	258	0	0	(258)	Note 20
Relocate Mobile Diesel Unit-Roddickton to St. Anthony	95	82	82	(13)	
TOTAL PROJECTS APPROVED BY PUB	2,798	1,470	2,389	(409)	
NEW PROJECTS LESS THAN $50,000 APPROVED BY HYDRO					
Carryover					
Project Review - Replace VHF Mobile Radio Systems	61	0	60	(1)	
New					
Purchase Site License for Proworx 32	33	26	27	(6)	
Replace Battery Bank - Grand Lake Crossing	26	14	23	(3)	
Purchase VHF Radios	27	37	39	12	
Replace Air Conditioning Unit - Hardwoods Terminal Station	24	0	23	(1)	
Preliminary Engineering - Rencontre Interconnection	49	8	16	(33)	
Purchase Condensor Easi Drive Mechanism-Units 1&2 Holyrood	19	18	18	(1)	
TOTAL PROJECTS LESS THAN $50,000 APPROVED BY HYDRO	239	103	206	(33)	

NEWFOUNDLAND & LABRADOR HYDRO
VARIANCE EXPLANATIONS
(Greater than $50,000)

GENERATION

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1. **Replace Unit 7 Exciter - Bay d'Espoir**

This was a multi-year project started in 2003 and completed in 2004. The original budget was based on the exciter model ABB Unitrol P identical to the exciters replaced for Units 1 to 6 at Bay d'Espoir Powerhouse 1. However, by late 2003, Hydro had a very good experience with a new exciter model ABB Unitrol F, at Granite Canal and Cat Arm Unit 1, which is $110,000 cheaper than the Unitrol P model. The Unitrol F model is equipped with standard off-the-shelf software and is easier to program and maintain. Based on the performance, experience and cost, the ABB Unitrol F model was procured and installed and is working satisfactorily.

2. **Replace Gate Hoist No. 2 - Ebbegunbaeg control Structure**

This was the first conversion ever from a screw-type gate hoist to a "wire-rope" type within the Hydro system. The budget estimate was prepared based on a budget price provided by a contractor. Three (3) tender prices for equipment supply were received; the lowest was $245,500 and the highest was $641,135. The lowest successful bidder was a local reputable contractor. The overall cost of the project is lower due to lower contractor costs due to competitive bidding and favourable weather conditions during installation.

3. **Upgrade Control System - Holyrood**

This is a multi-year project. Under Phase I in 2004, the Distributed Control System (DCS) for Units 1 and 2 were successfully replaced and commissioned. Hydro will replace the DCS for Unit 3 and Station Service in 2005. The variance of $54,000 during 2004 is not expected to carry through project completion. The $54,000 is a timing variance in the recording of the expenses for this multi-year $2.6 million project.

4. **Upgrade Civil Structures - Holyrood**

This is a multi-year project. Under Phase I in 2004, engineering design and the tender to replace the steel liner of Stack No. 2 was prepared. The tender has been issued for Phase II and the tender closing date is February 8, 2005. The variance of $70,000 during 2004 is due to the late arrival of invoices from a consultant.

5. **Upgrade TL214 - (138kV Bottom Brook - Doyles)**

The original budget was based on the work being done in a six-week total line outage. However, system operational constraints only allowed a three-week outage. Therefore, additional contractor resources had to be employed to meet the accelerated schedule. Market conditions for available lineworkers to meet the accelerated schedule contributed to the increase in costs. Design changes resulted in structure changes and an extra circuit kilometre of conductor which further increased the project costs. Finally, the operational requirements of Hydro and Newfoundland Power for the temporary generation plant were more extensive than what was conceived in the budget. This additional scope, resulted in further increases in the overall project costs.

6. **Replace Insulators TL233 - (230kV Buchans - Bottom Brook)**

The budget was based on the line being taken out of service for the duration of the insulator replacement work. As the fieldwork was being planned, the long-term outage plan could not be implemented. The line was required to be put back in service each night. This new plan required daily switching, which increased the length of time for the work and thus the total project cost.

7. **Install Motor Drive Mechanisms on Disconnects Switches - West Coast**

The budget was based on a preliminary design concept and methodology. This concept and methodology were revised considerably as the detailed engineering progressed. The equipment and material costs were less than anticipated and the installation work proceeded simpler and faster than expected, so the overall project costs were reduced.

8. **Service Extensions**

The budgeted amount is an annual allotment based on the average of the annual expenditures for service extensions over the last five years. It is not based on a summary of specific project costs. The variance represents the amount by which the current year's service extensions and corresponding expenditures exceeded the average of the last five years.

9. Distribution Upgrades

The budgeted amount is an annual allotment based on the average of the annual expenditures for distribution upgrades over the last five years. It is not based on a summary of specific project costs. The variance represents the amount by which the current year's distribution upgrades and corresponding expenditures exceeded the average of the last five years.

10. Pole Replacements

The total amount of the budget was the sum of the individual amounts for each system (Bottom Waters, and St. Anthony). The individual budgets were estimated as "stand-alone" projects. Once approved, the execution plan was to consolidate the two projects into one package for contract management. This consolidation resulted in more favourable tender prices and greater efficiencies in project and construction management. This resulted in an overall reduction in the total cost for the two projects.

11. Insulator Replacements

The total amount of the budget was the sum of the individual amounts for each system (Bottom Waters, Fleur-de-Lys and South Brook). The individual budgets were estimated as "stand-alone" projects. Once approved, the execution plan was to consolidate the three projects into one package for contract management. This consolidation resulted in more favourable tender prices and greater efficiencies in project and construction management. This resulted in an overall reduction in the total cost for the three projects.

12. **Replace Energy Management System - Energy Control Centre**

This is a multi-year project. The contract for this project was not awarded until June of 2004, whereas the original estimate assumed a 2003 award. This combined with other changes in the Schedule, has resulted in the transfer of funds to 2005 and 2006. The total estimated capital cost and the project completion date have not changed however, the project budget will be reviewed thoroughly in 2005 and forecast revised as appropriate.

13. **Corporate Applications Environment**

The actual cost of the project was under budget because 3 of the 4 work items under this project heading came in below budget. On one item that was below budget, a local consultant was used rather than the original software supplier; this resulted in 50% of the variance.

14. **Replacement of Operational Data & Voice Network - Phase II**

This is a two-year project. The variance is simply a cash flow difference between 2004 and 2005.

15. **Replace Vehicles - Hydro System - 2003**

The transportation review and the fleet review identified opportunities for less heavy transport equipment, standardization of some light duty equipment, relocation and sharing of some equipment and the elimination of some light duty mobile equipment. These resulted in fewer and less expensive units being purchased, and thus a reduction in the overall project cost.

16. **Replace Vehicles - Hydro System - 2004**

The reduction in project cost is a result of the opportunities identified in the transportation and fleet review. These opportunities resulted in fewer and lesser expensive units being purchased. The individual costs for category 1000, 2000 and 3000 units were generally less than budgeted. As well, the delayed delivery of one medium/heavy duty unit from 2004 to 2005 reduced the 2004 expenditures. Payment for this unit will be made in 2005. The delayed delivery and the reduced unit costs resulted in less contingency being used, giving the combined effect of a lower overall project cost.

17. Allocation for Unforeseen Events

There were no capital projects during 2004 that met the conditions imposed by the Board in P.U. 7 (2002 - 2003) for inclusion in the expenditure category.

18. Upper Salmon Slope Stabilization

This is a multi-year project. Based on the preliminary estimate, the Board approved the above budget amounts for the years 2004 and 2005. Under Phase I in 2004, an engineering study was commissioned to review the concerns with slope stability, evaluate the options and prepare the design and cost estimates. This has been successfully completed and Hydro is now preparing the revised cost estimates and the detailed design and tender. Hydro plans to complete this work during 2005.

Based on the study completed, this repair work will be carried out from a barge, which makes it a complex operation, to carry out the repairs under water to achieve the desired slope accurately. This will have a significant impact on cost and following completion of the revised estimates, the Board will be updated on the project.

19. Increase Generation - Port Hope Simpson

This was an unbudgeted project made necessary by the failure of a 300kW diesel generating unit at the Port Hope Simpson Diesel Plant. Hydro applied to the Board for approval for this project on March 22, 2004 and obtained approval on May 7, 2004 through Board Order # P.U. 13 (2004). The schedule for the project was for it to be completed in 2004. However, the replacement unit failed the first factory tests. Repairs and retesting caused a delay in delivery to late December such that installation and commissioning had to be re-scheduled to 2005. The project is now scheduled to be completed by the end of February 2005.

20. **Replacement of Diesel Unit - Hopedale**

This was an unbudgeted project made necessary by the failure of a 550kW diesel generating unit at the Hopedale Diesel Plant. Hydro applied to the Board for approval for this project on June 11, 2004 and obtained approval on July 30, 2004 through Board Order #P.U. 28 (2004). The tenders that were received for the replacement unit were not technically acceptable to Hydro, so the tender had to be recalled. There was insufficient time to recall the tender and obtain delivery to Hopedale before the close of the 2004 shipping season. It was therefore decided to re-schedule the project for completion in 2005. A mobile diesel generating unit was temporarily installed to meet the 2004/2005 winter peak. The tender will be recalled in February 2005 and installation will be completed by September 2005.

IC 139 NLH
2006 General Rate Application
Attachment 4

NEWFOUNDLAND AND LABRADOR HYDRO

2005 CAPITAL EXPENDITURES

YEAR ENDING DECEMBER 31, 2005

Filed with the Public Utilities Board
February/2006

NEWFOUNDLAND AND LABRADOR HYDRO
CAPITAL EXPENDITURES
For Year Ending December 31, 2005

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NEWFOUNDLAND & LABRADOR HYDRO
2005 CAPITAL EXPENDITURES
FOR THE QUARTER ENDING DECEMBER 31, 2005
($000)

OVERVIEW

	PUB Approved Budget 2005	4th Quarter Actuals 2005	Total Actual Expenditures 2005	Variance From 2005 Budget
GENERATION	7,779	3,236	7,386	(393)
TRANSMISSION & RURAL OPERATIONS	19,753	6,752	15,991	(3,762)
GENERAL PROPERTIES	15,920	3,828	7,909	(8,011)
ALLOWANCE FOR UNFORESEEN EVENTS	1,000	103	103	(897)
PROJECTS APPROVED BY PUB	3,112	(721)	2,477	(635)
NEW PROJECTS LESS THAN $50,000 APPROVED BY HYDRO	196	58	86	(110)
TOTAL CAPITAL BUDGET	47,760	13,256	33,952	(13,808)

Approved P.U. 53 (2004)	42,431
Approved P.U. 3 (2005)/P.U. 12(2005)	5,826
Approved P.U. 3 (2005)/P.U. 12(2005)	(5,826)
Carryover Projects 2004 to 2005	1,778
Approved P.U. 11 (2005)	3,154
Approved P.U. 14 (2005)	991
Approved P.U. 24 (2005)	(790)
Approved P.U. 29 (2005)	172
Approved P.U. 29 (2005)	(172)
New Projects under $50,000 Approved by Hydro	196
Revised TOTAL CAPITAL BUDGET	47,760

NEWFOUNDLAND & LABRADOR HYDRO
2005 CAPITAL EXPENDITURES
FOR THE QUARTER ENDING DECEMBER 31, 2005
($000)

CATEGORY

	PUB Approved Budget 2005	4th Quarter Actuals 2005	Total Actual Expenditures 2005	Variance From 2005 Budget
GENERATION				
HYDRO PLANTS				
Construction Projects	3,204	1,558	3,162	(42)
Tools & Equipment	294	50	199	(95)
THERMAL PLANT				
Construction Projects	1,854	625	1,598	(256)
Property Additions	2,072	778	2,009	(63)
Tools & Equipment	26	5	25	(1)
GAS TURBINES				
Construction Projects	329	220	393	64
TOTAL GENERATION	7,779	3,236	7,386	(393)
TRANSMISSION & RURAL OPERATIONS				
TRANSMISSION	3,590	1,091	2,721	(869)
SYSTEM PERFORMANCE & PROTECTION	468	227	546	78
TERMINALS	598	160	471	(127)
DISTRIBUTION	9,559	2,563	8,076	(1,483)
GENERATION	2,401	1,323	1,912	(489)
GENERAL				
Metering	192	33	131	(61)
Properties	1,023	627	979	(44)
Tools & Equipment	1,922	728	1,155	(767)
TOTAL TRANSMISSION & RURAL OPERATIONS	19,753	6,752	15,991	(3,762)

NEWFOUNDLAND & LABRADOR HYDRO
2005 CAPITAL EXPENDITURES
FOR THE QUARTER ENDING DECEMBER 31, 2005
($000)

CATEGORY

	PUB Approved Budget 2005	4th Quarter Actuals 2005	Total Actual Expend. 2005	Variance From 2005 Budget
GENERAL PROPERTIES				
INFORMATION SYSTEMS & TELECOMMUNICATIONS	13,722	3,553	6,452	(7,270)
ADMINISTRATIVE	2,198	275	1,457	(741)
TOTAL GENERAL PROPERTIES	15,920	3,828	7,909	(8,011)
ALLOWANCE FOR UNFORESEEN EVENTS	1,000	103	103	(897)
PROJECTS APPROVED BY PUB	3,112	(721)	2,477	(635)
PROJECTS APPROVED FOR LESS THAN $50,000	196	58	86	(110)
TOTAL CAPITAL BUDGET	47,760	13,256	33,952	(13,808)

NEWFOUNDLAND & LABRADOR HYDRO
2005 CAPITAL EXPENDITURES
FOR THE QUARTER ENDING DECEMBER 31, 2005
($000)

GENERATION

PROJECT DESCRIPTION	PUB Approved Budget 2005	4th Quarter Actuals 2005	Total Actual Expend. 2005	Variance From 2005 Budget
HYDRO PLANTS				
CONSTRUCTION PROJECTS				
Upgrade Slope Stabilization - Upper Salmon Power Canal	2,566	1,269	2,543	(23)
Replace Underground Fuel Tanks - Upper Salmon Generating Facility	327	231	329	2
Upgrade Controls Spherical Valve No. 6 - Bay d'Espoir	196	7	212	16
Replace Penstock - Snook's Arm Generating Station	115	51	78	(37)
TOTAL CONSTRUCTION PROJECTS	3,204	1,558	3,162	(42)
TOOLS & EQUIPMENT				
Purchase Dry Ice Cleaning System - BDE	59	14	14	(45)
Replace Doble F2000 Relay Test Equipment - BDE	96	0	56	(40)
Purchase Wedge Tightness Detector - BDE	49	1	28	(21)
Purchase & Replace Tools & Equipment Less than $50,000	90	35	101	11
TOTAL TOOLS & EQUIPMENT	294	50	199	(95)

NEWFOUNDLAND & LABRADOR HYDRO
2005 CAPITAL EXPENDITURES
FOR THE QUARTER ENDING DECEMBER 31, 2005
($000)

GENERATION

PROJECT DESCRIPTION	PUB Approved Budget 2005	4th Quarter Actuals 2005	Total Actual Expend. 2005	Variance From 2005 Budget	Variance Explan. Ref. No.
THERMAL PLANT					
CONSTRUCTION PROJECTS					
Upgrade Control System - Holyrood	1,088	69	1,016	(72)	Note 1
Purch/Inst Anti-Fouling System for Cooling Water Systems - Holyrood	705	504	527	(178)	Note 2
Purch/Inst Fire Protection System - Microwave Radio Room - Holyrood	61	52	55	(6)	
TOTAL CONSTRUCTION PROJECTS	1,854	625	1,598	(256)	
PROPERTY ADDITIONS					
Upgrade Civil Structures	2,072	778	2,009	(63)	Note 3
TOTAL PROPERTY ADDITIONS	2,072	778	2,009	(63)	
TOOLS & EQUIPMENT					
Purchase & Replace Tools & Equipment Less than $50,000	26	5	25	(1)	
TOTAL TOOLS & EQUIPMENT	26	5	25	(1)	
TOTAL THERMAL PLANTS	3,952	1,408	3,632	(320)	
GAS TURBINES					
CONSTRUCTION PROJECTS					
Install Main Fuel Line Valve - Hardwoods	91	3	74	(17)	
Install Transferred Diesel Generating Set - Stephenville	87	107	121	34	
Replace Battery Bank - Hardwoods	58	19	57	(1)	
Purchase/Install Reconciliation Flow Meters - Stephenville	26	10	21	(5)	
Purchase/Install Reconciliation Flow Meters - Hardwoods	24	5	18	(6)	
Replace Control Module HVAC Unit - Hardwoods	24	0	24	0	
Automate Diesel Backup System - Hardwoods	19	76	78	59	Note 4
TOTAL CONSTRUCTION PROJECTS	329	220	393	64	
TOTAL THERMAL PLANTS	329	220	393	64	
TOTAL GENERATION	7,779	3,236	7,386	(393)	

NEWFOUNDLAND & LABRADOR HYDRO
2005 CAPITAL EXPENDITURES
FOR THE QUARTER ENDING DECEMBER 31, 2005
($000)

TRANSMISSION & RURAL OPERATIONS

PROJECT DESCRIPTION	PUB Approved Budget 2005	4th Quarter Actuals 2005	Total Actual Expend. 2005	Variance From 2005 Budget	Variance Explan. Ref. No.
TRANSMISSION					
Replace Wood Poles - Transmission	2,588	739	2,243	(345)	Note 5
Upgrade TL221 - (69kV Peter's Barren - Hawkes Bay)	774	270	315	(459)	Note 6
Replace Insulators TL243 - (138kV Hinds Lake - Howley)	228	82	163	(65)	Note 7
TOTAL TRANSMISSION	3,590	1,091	2,721	(869)	
SYSTEM PERFORMANCE & PROTECTION					
Provide Remote Control - Farewell Head Terminal Station	127	159	266	139	Note 8
Purch/Install Digital Fault Recorder - Bottom Brook	122	2	91	(31)	
Purch/Install 66Kv Breaker Fail Protection Addition - Massey Drive TS	81	24	50	(31)	
Upgrade Protection 66Kv Lines - Peter's Barren , Daniel's Harbour	78	17	62	(16)	
Upgrade Breaker Controls - BBK/MDR Terminal Station	33	11	30	(3)	
Purch/Install 66Kv Breaker Protection Upgrade - Bay d'Espoir	27	14	47	20	
TOTAL SYSTEM PERFORMANCE & PROTECTION	468	227	546	78	
TERMINALS					
Install Motor Drive Mechanisms on Disconnect Switches - East Coast	183	42	118	(65)	Note 9
Replace Battery Banks	166	47	158	(8)	
Replace Instrument Transformers	75	11	54	(21)	
Replace Surge Arrestors	68	31	80	12	
Purch/Install Conduit and Cable - (Bay d'Espoir TS - Powerhouse)	61	7	35	(26)	
Construct Yard Extension - Conne River Substation	45	22	26	(19)	
TOTAL TERMINALS	598	160	471	(127)	

NEWFOUNDLAND & LABRADOR HYDRO
2005 CAPITAL EXPENDITURES
FOR THE QUARTER ENDING DECEMBER 31, 2005
($000)

TRANSMISSION & RURAL OPERATIONS

PROJECT DESCRIPTION	PUB Approved Budget 2005	4th Quarter Actuals 2005	Total Actual Expend. 2005	Variance From 2005 Budget	Variance Explan. Ref. No.
DISTRIBUTION					
Interconnect - Rencontre East	3,250	555	1,804	(1,446)	Note 10
Service Extensions	1,728	742	2,009	281	Note 11
Distribution Upgrades	1,601	651	2,495	894	Note 12
Insulator Replacements	971	107	455	(516)	Note 13
Upgrade Distribution Line - Cook's Harbour	718	131	478	(240)	Note 14
Upgrade Distribution Line - L'Anse au Loup L1 & L2	636	165	281	(355)	Note 15
Relocate Substation- Roberts Arm/Triton	319	106	331	12	
Distribution Line Pole Replacements	168	77	127	(41)	
Purchase and Install Reclosers - Makkovik & Hopedale	125	29	96	(29)	
Relocate Regulator Bank - Happy Valley	43	0	0	(43)	
TOTAL DISTRIBUTION	9,559	2,563	8,076	(1,440)	
GENERATION					
Upgrade Generator Relaying - Happy Valley North Plant	29	0	55	26	
Increase Generation - L'Anse au Loup	392	392	442	50	
Replace Diesel Generating Unit No. 266 - Williams Hr.	304	215	237	(67)	Note 16
Replace Dam - Roddickton Mini Hydro	232	70	134	(98)	Note 17
Installation of Fall Arrest Equipment - Hydro facilities	206	149	182	(24)	
Install Shut-Off Valves - Diesel Plants	165	51	69	(96)	Note 18
Install Fuel Storage Tanks - Hopedale & Paradise River	152	140	167	15	
Replacement of Circuit Breakers - Hawkes Bay Diesel	111	18	78	(33)	
Upgrade Cooling System - Black Tickle	107	58	87	(20)	
Install Day Tank and Fuel Meter - Ramea	106	11	41	(65)	Note 19
Upgrade Building System North Plant - Goose Bay	99	20	79	(20)	
Raise Stack Heights - St. Brendan's, Black Tickle, Cartwright	96	47	62	(34)	
Purch.& Inst. Digital Metering - Francois, McCallum, Grey River, Little Bay	90	37	64	(26)	
Upgrade Diesel Plant - Black Tickle	85	77	103	18	
Purchase Data Acquisition Software - Diesel Plants	70	24	64	(6)	
Install Intermediate Fuel Storage Tank - Charlottetown	66	13	13	(53)	Note 20
Modify Heating System - Hopedale	54	1	1	(53)	Note 21
Replace Battery Banks - L'Anse au Loup & Hawkes Bay	37	0	34	(3)	
TOTAL GENERATION	2,401	1,323	1,912	(489)	

NEWFOUNDLAND & LABRADOR HYDRO
2005 CAPITAL EXPENDITURES
FOR THE QUARTER ENDING DECEMBER 31, 2005
($000)

TRANSMISSION & RURAL OPERATIONS

PROJECT DESCRIPTION	PUB Approved Budget 2005	4th Quarter Actuals 2005	Total Actual Expend. 2005	Variance From 2005 Budget	Variance Explan. Ref. No.
GENERAL					
METERING					
Purchase Meters & Equipment - Rural System	159	18	114	(45)	
Purchase Metering Spares - Bulk Electrical System	33	15	17	(16)	
TOTAL METERING	192	33	131	(61)	
PROPERTIES					
Install Central Air Conditioning - Whitbourne & Stephenville	289	184	205	(84)	Note 22
Warehouse Renovations - St. Anthony	147	7	150	3	
Upgrade Line Depot/Shed - Baie Verte, Sop's Arm & Bay d'Espoir	151	114	133	(18)	
Replace Line Depot Building - Mary's Harbour	74	123	131	57	Note 23
Purchase Global Positioning System	57	0	41	(16)	
Replace Fence Daniels Harbour Terminal Station	52	0	57	5	
Construct PCB Storage Building - Wabush	52	32	45	(7)	
Legal Survey of Distribution Line Right-of-Ways	50	79	93	43	
Extend Fence - Quartzite Terminal Station	49	33	49	0	
Provide Security System - Port Saunders Office	43	17	32	(11)	
Construct Storage Ramp - Stephenville & Whitbourne	36	35	38	2	
Replace Wooden Gantry Crane - Salvage Stores	16	0	0	(16)	
Construct Lube Oil Storage Ramp - Williams Harbour	7	3	5	(2)	
TOTAL PROPERTIES	1,023	627	979	(44)	
TOOLS & EQUIPMENT					
Replace Nodwell V7600 & Boom V6067 - Stephenville	798	649	653	(145)	Note 24
Purchase Mobile Oil Reclaimation Unit	531	8	28	(503)	Note 25
Replace Doble F2000 Relay Test Equipment - BFL, WBN, STV & BDE	266	1	169	(97)	Note 26
Purchase & Replace Tools & Equipment Less than $ 50,000	67	6	60	(7)	
Replace Light Duty Mobile Equipment Less than $50,000	260	64	245	(15)	
TOTAL TOOLS & EQUIPMENT	1,922	728	1,155	(767)	
TOTAL GENERAL	3,137	1,388	2,265	(872)	
TOTAL TRANSMISSION & RURAL OPERTIONS	19,753	6,752	15,991	(3,762)	

NEWFOUNDLAND & LABRADOR HYDRO
2005 CAPITAL EXPENDITURES
FOR THE QUARTER ENDING DECEMBER 31, 2005
($000)

GENERAL PROPERTIES

PROJECT DESCRIPTION	PUB Approved Budget 2005	4th Quarter Actuals 2005	Total Actual Expend. 2005	Variance From 2005 Budget	Variance Explan. Ref. No.
INFORMATION SYSTEMS & TELECOMMUNICATIONS					
SOFTWARE APPLICATIONS					
INFRASTRUCTURE REPLACEMENT					
Replace Energy Management System - Energy Control Centre	6,836	1,016	2,108	(4,728)	Note 27
NEW INFRASTRUCTURE					
Applications Enhancements	311	141	334	23	
Security Program - Secure Remote Access	76	69	69	(7)	
Upgrade of Technology					
Corporate Application Environment - 2005	274	44	261	(13)	
Cost Recovery CF(L)Co	(52)	(13)	(52)	0	
TOTAL SOFTWARE APPLICATIONS	7,445	1,257	2,720	(4,725)	
COMPUTER OPERATIONS					
INFRASTRUCTURE REPLACEMENT					
iSeries Replacement	228	329	399	171	Note 28
Cost Recovery CF(L)Co	(79)	97	(80)	(1)	
End User Infrastructure Evergreen Program - 2005	711	219	644	(67)	Note 29
NEW INFRASTRUCTURE					
Peripheral Infrastructure Replacement - 2005	118	54	121	3	
Security Strategy Deployment - 2005	99	71	106	7	
Cost Recovery CF(L)Co	(19)	(7)	(21)	(2)	
UPGRADE OF TECHNOLOGY					
Server & Operating Systems Evergreen Program - 2005	212	36	179	(33)	
TOTAL COMPUTER OPERATIONS	1,270	799	1,348	78	

NEWFOUNDLAND & LABRADOR HYDRO
2005 CAPITAL EXPENDITURES
FOR THE QUARTER ENDING DECEMBER 31, 2005
($000)

GENERAL PROPERTIES

PROJECT DESCRIPTION	PUB Approved Budget 2005	4th Quarter Actuals 2005	Total Actual Expend. 2005	Variance From 2005 Budget	Variance Explan. Ref. No.
INFORMATION SYSTEMS & TELECOMMUNICATIONS					
NETWORK SERVICES					
INFRASTRUCTURE REPLACEMENT					
Replace VHF Mobile Radio System	2,915	67	352	(2,563)	Note 30
Cost Recovery - WST	0	(176)	(176)	(176)	
Replace Battery System - Multiple Sites - 2005	364	238	321	(43)	
Microwave Site Refurbishing - 2005	294	270	291	(3)	
Replace Remote Terminal Unit for Hydro - Phase 6	150	25	204	54	Note 31
Replace Air Conditioners - Stoney Brook & Hardwoods	55	68	77	22	
Replace Voice and Data Communications - Berry Hill	15	(2)	0	(15)	
UPGRADE OF TECHNOLOGY					
Replacement of Operational Data & Voice Network - Phase II	1,166	991	1,262	96	Note 32
Upgrade Site Grounding - 2005	48	16	53	5	
TOTAL NETWORK SERVICES	5,007	1,497	2,384	(2,623)	
TOTAL INFORMATION SYSTEMS & TELECOMMUNICATIONS	13,722	3,553	6,452	(7,270)	

NEWFOUNDLAND & LABRADOR HYDRO
2005 CAPITAL EXPENDITURES
FOR THE QUARTER ENDING DECEMBER 31, 2005
($000)

GENERAL PROPERTIES

PROJECT DESCRIPTION	PUB Approved Budget 2005	4th Quarter Actuals 2005	Total Actual Expend. 2005	Variance From 2005 Budget	Variance Explan. Ref. No.
ADMINISTRATIVE					
VEHICLES					
Replace Vehicles - Hydro System - 2004	505	34	249	(256)	Note 33
Replace Vehicles - Hydro System - 2005	868	0	650	(218)	Note 34
ADMINISTRATION					
Electronic Metering Reading	224	34	35	(189)	Note 35
Replace Chiller - Hydro Place	213	0	201	(12)	
Security Assessment of System Operations	110	82	82	(28)	
Upgrade Standby Diesel Fuel System - Hydro Place	91	39	58	(33)	
Re-Construct Storage Ramps - Bishop's Falls	73	70	70	(3)	
Purchase & Replace Admin Office Equip less than $50,000	114	16	112	(2)	
TOTAL ADMINISTRATIVE	2,198	275	1,457	(741)	
TOTAL GENERAL PROPERTIES	15,920	3,828	7,909	(8,011)	

NEWFOUNDLAND & LABRADOR HYDRO
2005 CAPITAL EXPENDITURES
FOR THE QUARTER ENDING DECEMBER 31, 2005
($000)

OTHER APPROVED FUNDS

PROJECT DESCRIPTION	PUB Approved Budget 2005	4th Quarter Actuals 2005	Total Actual Expend. 2005	Variance From 2005 Budget	Variance Explan. Ref. No.
ALLOCATION FOR UNFORESEEN EVENTS					
Allocation for Unforeseen Events	1,000	0	0	(1,000)	
Repair Leaking Underground Fuel Supply, Return/Drain Pipes		103	103	103	
TOTAL ALLOCATION FOR UNFORESEEN EVENTS	1,000	103	103	(897)	Note 36
PROJECTS APPROVED BY PUB					
CARRYOVER					
Replacement of Diesel Unit - Hopedale	258	29	247	(11)	
Increase Generation - Port Hope Simpson	171	3	136	(35)	
Relocate Mobile Diesel Unit - Roddickton to St. Anthony	13	0	11	(2)	
NEW					
Transmission Interconnection - Duck Pond Mine Site	5,826	2,191	4,594	(1,232)	
Contribution	(5,826)	(4,513)	(4,594)	1,232	
Cat Arm Road - Rehabilitation	1,260	878	1,358	98	Note 37
Replace Diesel Engine # 2046, Ramea	226	176	176	(50)	
Cat Arm Unit 1 Governor Controls Replacement	378	7	13	(365)	Note 38
Disconnecting Means to 600 Volt MCC Branch Feeders	613	328	356	(257)	Note 39
Replace Diesel Generator - Holyrood	193	180	180	(13)	
TOTAL PROJECTS APPROVED BY PUB	3,112	(721)	2,477	(635)	
NEW PROJECTS LESS THAN $50,000 APPROVED BY HYDRO					
Ebbegunbaeg Water Level Station	42	33	39	(3)	
Remote Monitoring System - Granite Canal	26	10	10	(16)	
Electrical Arc Flash Personal Protection Equipment	42	0	0	(42)	
Purchase Hydraulic Operated Drill	2	0	2	0	
Replace Broken Poles - TL# 239	10	0	10	0	
Portland Creek, Application for Water Use License	10	0	10	0	
New Well and Septic System - Springdale Line Depot	49	1	1	(48)	
Replace Circuit Breaker Unit # 2044	15	14	14	(1)	
NEW PROJECTS LESS THAN $50,000 APPROVED BY HYDRO	196	58	86	(110)	

NEWFOUNDLAND & LABRADOR HYDRO
VARIANCE EXPLANATIONS
(Greater than $50,000)

GENERATION

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1. Upgrade Control System - Holyrood

Due to the planned extended outage of the plant to facilitate the asbestos removal program, further extending the outage to permit all aspects of the control systems upgrade would risk generation and transmission security. Due to the nature of the asbestos removal procedures, work could not generally be done concurrently. The project will be fully completed in 2006.

2. Purchase/Install Anti-Fouling System for Cooling Water Systems - Holyrood

The reason for delay is longer than anticipated delivery of customer designed equipment. The equipment was ordered the end of May with delivery expected by mid-October. Delivery did not actually take place until late December. There will be 4 to 6 weeks installation/commissioning required after that. It is expected to be complete by the end of February. The total estimated capital cost remains unchanged.

3. Upgrade Civil Structures

This project benefited from the successful completion of a similar project in 2003. There was a modest cost saving in engineering and management through the re-use of the same designs and personnel.

4. Automate Diesel Backup System - Hardwoods

The original scope of work consisted of installation of an automatic transfer switch for the existing 40kW backup diesel unit, however, upon further engineering review, the installation of an automatic battery charger using 3-phase power from the diesel unit is a more reliable alternative. It would also provide this gas turbine unit with a backup battery charger for its battery bank, especially during start-up. The existing diesel unit was replaced with a 40kW diesel unit (#572 from Petites) which has a standard protection control panel, and for which automatic controls is not an issue.

5. Replace Wood Poles - Transmission

Part of the Wood Pole Line Management program was substantial refurbishment work required on TL201 and TL203. Due to reliability problems in providing power to the Avalon Peninsula given a combination of Holyrood operational unit schedules, power demands in St. John's and a line being out for this work, outage availability for the lines were very restricted. This combined with a shortage of line workers resulted in a delay of the refurbishment work for TL201 and TL203 until early in 2006. It is estimated that an extra $25,000 will be required to complete this work.

6. Upgrade TL221 - (69kV Peter's Barren - Hawkes Bay)

The approved proposal was to upgrade a 27km section of TL221 between Peter's Barren and Hawkes Bay in 2005. The scope included the replacement of approximately 1000 insulators and associated wood cross-arms for the entire 27km section which has performed poorly due to flashovers during periods of heavy salt contamination in this section of line. The insulators were to be replaced with resistive glazed (RG) insulators which perform better than the standard insulators under these salt contamination conditions. However, this year this type of insulator was not available from the manufacturer, NGK. As an alternative, it was proposed to apply a high voltage insulator coating (HVIC) to the insulators. This product helps prevent insulator flashovers in heavily contaminated environments, such as the salt environment experienced on this section of line. The expected life for this product is from 15 to 20 years before reapplication is necessary and the cost of this application was less expensive than the RG insulator proposal. Cross-arm replacement and upgrade were also part of the original proposal to give wider phase spacing to mitigate outages caused by high winds. Review of the outage causes in the outage database did not support this and thus, cross-arm replacement was removed from the project scope further reducing the cost.

7. Replace Insulators TL243 - (138kV Hinds Lake - Howley)

The budget was based on the most probable plan of the work being done by Contract. Thus it included costs for contract management, site supervision, environmental monitoring of the contractor and commissioning inspections by Hydro forces. Factors such as location of the work, availability of work crews, required outages and requirements for 'hot line' work, resulted in this work being completed by internal resources thus reducing the final project cost.

8. Provide Remote Control - Farewell Head Terminal Station

There was no control building existing on site and one was required for the communications and protection equipment. This was not included in the budget. In addition, there was a substantial increase in communication costs and new protection relays purchased failed the bench test and had to be returned causing further delays and cost over runs.

9. Install Motor Drive Mechanisms on Disconnect Switches - East Coast

All the work planned for 2005 could not be accomplished due to the unavailability of equipment outages. Pending the availability of outages, all work is planned to be finished in 2006.

10. Interconnect - Recontre East

The major factor contributing to the extended schedule was the contractor underestimated the degree of difficulty in constructing a distribution line and access route over a section of very rough terrain. Although the contractor made a reasonable effort to perform the work, the duration of the project was extended considerably. It is estimated the project will extend into the first quarter of 2006. The total estimated capital cost remains unchanged.

11. Service Extensions

The budgeted amount is an annual allotment based on the average of the annual expenditures for service extensions over the last five years. It is not based on a summary of specific project costs. The variance represents the amount by which the current year's service extensions and corresponding expenditures exceeded the average of the last five years.

12. Distribution Upgrades

The budgeted amount is an annual allotment based on the average of the annual expenditures for distribution upgrades over the last five years. It is not based on a summary of specific project costs. The variance represents the amount by which the current year's distribution upgrades and corresponding expenditures exceeded the average of the last five years.

13. Insulator Replacements

The budget was based on the most probable plan of the work being done by Contract. Thus it included costs for contract management, site supervision, environmental monitoring of the contractor and commissioning inspections by Hydro forces. Factors such as location of the work, availability of work crews, required outages and requirements for 'hot line' work, resulted in this work being completed by internal resources thus reducing the final project cost.

14. Upgrade Distribution Line - Cook's Harbour

The budget was based on the most probable plan of the work being done by Contract. Thus it included costs for contract management, site supervision, environmental monitoring of the contractor and commissioning inspections by Hydro forces. Factors such as location of the work, availability of work crews, required outages and requirements for 'hot line' work, resulted in this work being completed by internal resources thus reducing the final project cost.

15. Upgrade Distribution Line - L'Anse au Loup L1 & L2

Originally, the project scope included the replacement of the two single-pole structures on the Forteau River crossing with two 2-pole structures. Due to problems with obtaining the necessary approvals from the Environment Department for the poles to be installed near the river, and the late time of the year, plus the reassessment of the job which determined that it could be postponed until the summer of 2006, it was not done under this project. The project also had included replacement of automatic splicing sleeves throughout the L'Anse au Loup system. A reassessment of this portion of the project was also done to determine if it was necessary to replace all of the sleeves. It was concluded that they needed to be replaced in some critical locations, and would not necessarily be required in all locations. There were additional cost savings due to the reduction in project inspection and commissioning costs.

16. Replace Diesel Generating Unit No. 266 - Williams Hr.

The majority of differences between budget and actuals is accounted for by lower than anticipated costs for project/construction management, installation and commissioning, which were based on historical costs for work of the same scope.

17. Replace Dam - Roddickton Mini Hydro

The scope of the project proposed in the 2005 Capital Budget was to completely replace the rock filled crib-dam with a new structure. This recommendation was based on the appearance of the downstream face, significant leakage through the dam and the fact that the dam was 25 years old when the life expectancy of this type of dam in fresh water is 25 to 30 years. Prior to commencing detail design an engineering consultant familiar with this type of dam was hired to evaluate the dam's condition. The consultant recommended further destructive testing to access the interior structure of the dam. This was completed and it was discovered that contrary to the appearance of the downstream face that the interior timbers and the dam facing wood was in very good condition. Based on the results of this investigation it was decided to proceed with a lesser scope repair. This stopped the leakage by replacing the existing till toe at the upstream face and installing sheeting plywood and polyethelene over the existing sheeting on the upstream face and installing blocking timber in the downstream face. This remedial work is expected to extend the life of the dam by 5 to 7 years, possibly longer.

18. Install Shut-Off Valves - Diesel Plants

The major reason for the reduced costs for installation of shut-off valves was the amount of capital work undertaken last year allowed for the installation of most of these valves to be completed in conjunction with other work. Therefore, significant savings was achieved with respect to travel, accommodations and labour. Two of the sites could not be completed due to logistical issues at the time the work was scheduled to be undertaken. The valves are on hand and will be installed when practical to do so, in coordination with other scheduled work.

19. Install Day Tank and Fuel Meter - Ramea

This project involves the installation of a day tank system and fuel meter in the Ramea Diesel Plant. This will allow for fuel reconciliation to be performed in accordance with the Gasoline and Associated Products regulations. Due to delays in completing other work, this project has been postponed until February 2006, however the total estimated capital cost remains unchanged.

20. Install Intermediate Fuel Storage Tank - Charlottetown

This project involves the installation of an intermediate fuel storage tank to allow for transfer of sufficient fuel from the bulk storage to the plant prior to fuel delivery so that the day tank does not require filling during the fuel transfer. Currently, the day tank must be filled during the transfer operation, and this results in it being impossible to perform a fuel reconciliation as required by the Gasoline and Associated Products regulations.Operational problems also occur due to dirt and water being drawn into the engine fuel systems. The requirement for this project was reviewed as a result of the availability of fuel delivery by truck, and the start of the project was delayed as a result. After review, it was decided that the project would proceed and the job cost was raised in late August. This project will now be completed by the end of March 2006.

21. Modify Heating System - Hopedale

This project involves modifying the plant hydronic heating system to capture sufficient waste heat from the diesel engines to heat the plant. The existing system configuration cannot utilize the total heat available, and cannot provide sufficient heat for the plant. This project has not been completed due to delays in completing earlier scheduled projects. This project will be completed by the end of February.

22. Install Central Air Conditioning - Whitbourne & Stephenville

The original estimate for construction costs of $180,000 was within range of Consultant's estimates of $119,000 to $183,000. Actual construction costs were approximately $144,000. Total engineering and management costs were under budget by $15,000, which is very near the difference of $12,000 between high and low bids for design services. In addition, final commissioning was not complete at year-end, therefore, travel and labour costs associated with this portion of the job are not included.

23. Replace Line Depot Building - Mary's Harbour

The increase in cost for building construction is the result of unfavourable bidding. The budget price to construct this very basic building was approximately $260 per meter square whereas the lowest bid was approximately $430 per meter square. Inspection costs also increased as a result of the inability to coordinate this work with other projects ongoing in the area.

24. Replace Nodwell V7600 & Book V6067 - Stephenville

This job was completed at $145,000 below budget primarily due to the fact that Altec Ltd., the successful bidder had just completed building 3 similar units and as a result had refined the costs of construction and through the competitive bidding process passed the savings along to Hydro. The lower tender price and a bid which met all of our specifications also meant there was no requirement to utilize the budgeted contingency.

25. Purchase Mobile Oil Reclaimation Unit

A contract was awarded to GE Energy Services of Ohio in 2005 to supply a self-contained mobile oil reclamation unit to facilitate refurbishing the oil of aged power transformers. This reclamation unit was to have been delivered to Hydro in the fall of 2005. Hydro sent two technicians to Ohio to perform an inspection and function testing of this unit in early November 2005, at which time a list of deficiencies was identified. GE are working on the deficiencies which will require some redesign and further inspection and testing before we will take receipt of this equipment. Delivery is now anticipated to be in the spring of 2006.

26. Replace Doble F2000 Relay Test Equipment -BFL, WBN, STV & BDE

The purchase of Doble F2000 relay test equipment were based on original estimates from Doble Engineering. However, Hydro was eventually able to negotiate a better price thus reducing the overall cost.

27. Replace Energy management System - Energy control Centre

This is a multi-year project. Payments to the contractor are based on milestones being completed. A couple of milestone dates have been missed as well as scheduled training delays. The total estimated capital cost and the project completion date have not changed.

28. iSeries Replacement

The iSeries replacement was under budget due to a price reduction and performance enhancement of the iSeries computers. The iSeries model type that we purchased was not available at the time the budget was prepared.

29 End User Infrastructure Evergreen Program - 2005

The number of units required were less than forecast as well as drop in the overall unit price. There was $19,000 carried over into 2006 due to equipment that was ordered but not received by year-end.

30. Replace VHF Mobile Radio System

This is a multi-year project. Due to delays associated with completing the Tender Evaluations and the subsequent contract negotiations, it is anticipated that the project will be delayed by approximately 3 months, however the total estimated capital cost has not changed.

31. Replace Remote Terminal Unit for Hydro - Phase 6

Due to the installation of a fiber optic cable between the powerhouse and terminal station no. 2 at the Bay d'Espoir Plant, Hydro was able to upgrade the proposed design for the remote terminal unit. This will facilitate gathering fault type and location data not provided by the existing system design. The enhanced design also included a GPS clock that was recognized as a system deficiency by System Operations.

32. Replacement of Operational Data & Voice Network - Phase II

Resolving a number of technical issues created significant costs in field testing, increases in internal resources and delays in the project. To keep the schedule, extra crews were utilized. To overcome technical problems, extra prototyping was utilized. Most of this cost was contracted through our partner agreement with Aliant/XWave.

33. Replace Vehicles - Hydro System - 2004

The reduction in project cost is a result of the opportunities identified in the transportation and fleet review. These opportunities resulted in fewer and lesser expensive units being purchased. The individual costs for category 1000, 2000 and 3000 units were generally less than budgeted.

34. Replace Vehicles - Hydro System - 2005

Vehicle replacement completed at $100,000 below budget reflecting the fact that the vehicles and aerial devices purchased at the estimated cost per unit, and the contingency funds did not need to be utilized.

35. Electronic Metering Reading

The purchase cost for the electronic metering units have dropped since the initial approval as have the Cdn/US exchange rate. This is reflected in the revised cost.

36. Allocation for Unforeseen Events

There was one capital project during 2005 that met the conditions imposed by the Board in P.U.7 (2002-2003) for inclusion in the expenditure category. Replacement of Underground Fuel Supply - Hardwoods Gas Turbine was filed as a separate report on October 27, 2005.

37. Cat Arm Road - Rehabilitation

When tenders were received for the work, the low bid was approximately $300,000 more than estimated. With the four lowest tenders being within 10% of each other and based on unit prices, this confirmed that the bid was the right price for the work tendered. The design was reviewed, however, nothing was revealed that could be changed to realize any significant savings. There was also no time for redesign and re-tendering to complete the work within the 2005 construction season. As the work was critical to ensure safe access to the generating plant, it was decided to proceed with the work for the tendered amount. This resulted in using the $200,000 project contingency and approximately $100,000 in additional funds.

38. Cat Arm Unit 1 Governor Controls Replacement

This is a multi-year project and due to work scheduling conflicts, only the engineering specifications got completed. The total estimated capital cost remains unchanged, however, the completion date is estimated to be October 2006.

39. Disconnecting Means to 600-Volt MCC Branch Feeders

The work planned required a number of outages during the year. The limited availability for scheduled outages resulted in this work being delayed until 2006.