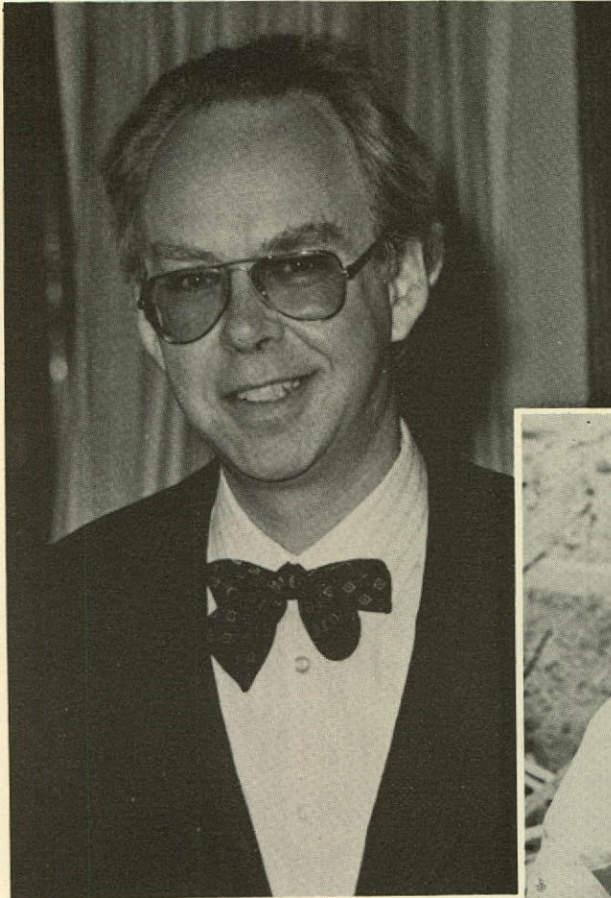


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**nova scotia power corporation**  
**62nd annual report**  
**1981 / 82**







J. A. F. Macdonald  
Chairman



TO: His Honour  
The Honourable John E. Shaffner  
Lieutenant-Governor of Nova Scotia

Sir:

I have the honour to submit herewith the sixty-second Annual Report of the Nova Scotia Power Corporation, together with financial statements for the fiscal year ended March 31, 1982.

The Corporation incurred an operating loss of \$16,313,000 notwithstanding the financial assistance of your government and a concerted effort by the Corporation to combat rising costs in this difficult economic period.

Accordingly, later this year the Corporation will file an application with the Nova Scotia Board of Commissioners of Public Utilities for an increase in rates to become effective January 1, 1983.

During the past year, service to our customers continued at a high level through the team effort of

skilled, conscientious employees. Not the least of these was Dr. L. F. Kirkpatrick who retired as President and Chief Executive Officer on April 30, 1982 after twenty-seven years of service. Dr. Kirkpatrick provided capable, dedicated leadership during a time when the responsibilities and business of the Corporation increased rapidly against a background of severe dislocations in world energy economics. His contribution to the reliable and efficient electrical service enjoyed by the citizens of Nova Scotia merits the highest praise.

The Corporation has new challenges to meet in the coming years, but with the support of our employees and customers and of your government I am confident that we can successfully fulfill our obligations.

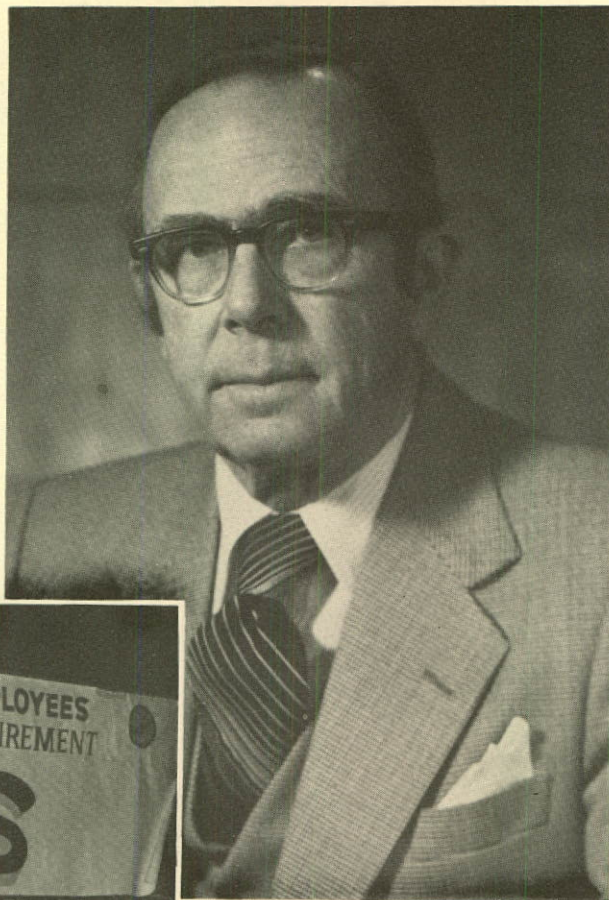
Respectfully submitted,

A handwritten signature in dark ink, appearing to read "J. A. F. Macdonald". The signature is fluid and cursive, written over a light-colored background.

J. A. F. Macdonald  
Chairman



## President's Report



L. F. Kirkpatrick  
President and  
Chief Executive Officer

Despite improved efficiencies and productivity within the Corporation and financial assistance of nearly \$27 million from the Government of Nova Scotia, an operating deficit of \$16,313,000 was incurred for the year ended March 31, 1982. This deficit is primarily attributable to higher fuel costs and the fact that our rates have remained unchanged for almost three years.

Fuel costs increased by \$12 million over the previous year mainly because of higher prices under the Federal Government's oil-pricing policy. This problem was further accentuated by the coal strike from mid-July to mid-October which dwindled stockpiles of coal, making it necessary to generate greater than anticipated amounts of electricity from oil-fired plants.



Load growth over the previous year amounted to only 0.88 per cent, the lowest increase in system annual energy requirements in four years. This was due primarily to economic conditions which resulted in reduced demand by industrial customers.

While the Corporation's financial picture was not encouraging, there were some positive developments: the continuing success of the Lingan Generating Station, record hydro production, increased thermal efficiency, improved control of the generation and transmission functions, favorable progress in the construction of new plant and the successful introduction of new methods of evaluating employee performance and productivity.

The Lingan station was again the prime factor in the Corporation's ability to generate more electricity from coal than any other source. Lingan, the major component in the Corporation's off-oil policy which began in the mid-seventies, provided almost two billion kilowatt hours, or 30.5 per cent of Nova Scotia's total electrical needs.

Hydro production was the highest on record, accounting for 17.63 per cent of requirements, and this fact combined with the lowest system heat rate on record — 9 950 Btu per kilowatt hour — was significant in preventing an even greater operating loss.

The separation of the Halifax-Dartmouth Distribution Control Centre from the Provincial Control and Energy Management Centre during



*Annapolis Tidal Power project.*



the past year provided significant improvements in system control efficiencies. The Provincial Centre is another example of the Corporation's utilization of advanced technology in optimizing the economic generation and transmission of electricity. The centre, by means of a computer-driven supervisory control and data acquisition system, automatically controls the loading of the major thermal units and the Wreck Cove hydro units for greatest efficiency. Additionally the centre directs the operation of the transmission system including the major switching stations in the central and eastern areas of the province.

Construction of two additional 150-megawatt coal-fired Lingan units, two small hydro units at Gisborne and Fourth Lake and the Annapolis Tidal Power project progressed favorably during the past year.

Gisborne and Fourth Lake are scheduled for completion during fiscal 1982-83; the 20 megawatt Annapolis unit, being constructed by NSPC on behalf of Tidal Power Corporation, is expected to be commissioned in June, 1983; while the Lingan units are scheduled to come on line in February, 1984 and October, 1984, respectively.

These projects, combined with the other off-oil successes of the past four years, will reduce the Corporation's dependency on imported oil to approximately 15 percent by 1985-86, a remarkable turnaround from 1978 when we relied on imported oil for 65 percent of our generation.

Corporate efficiency continued to improve. Steamlining of the organization, optimum use of technological opportunities and a dedicated effort by employees has led to an increase in productivity. In actual fact, the Corporation has fewer employees today than it did two years ago, even though our customers have increased by 18 000.

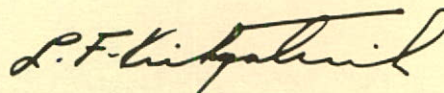
Our electric service rates have been constant since mid-1979 during which time there has been an increase in the Consumer Price Index of 41.3 per cent.

It is apparent that with rising costs and continued inflation, the Corporation cannot continue to rely on government grants to meet its commitments.

Therefore, it will be necessary to apply to the Nova Scotia Board of Commissioners of Public Utilities to increase rates before the end of the 1982-83 fiscal period.

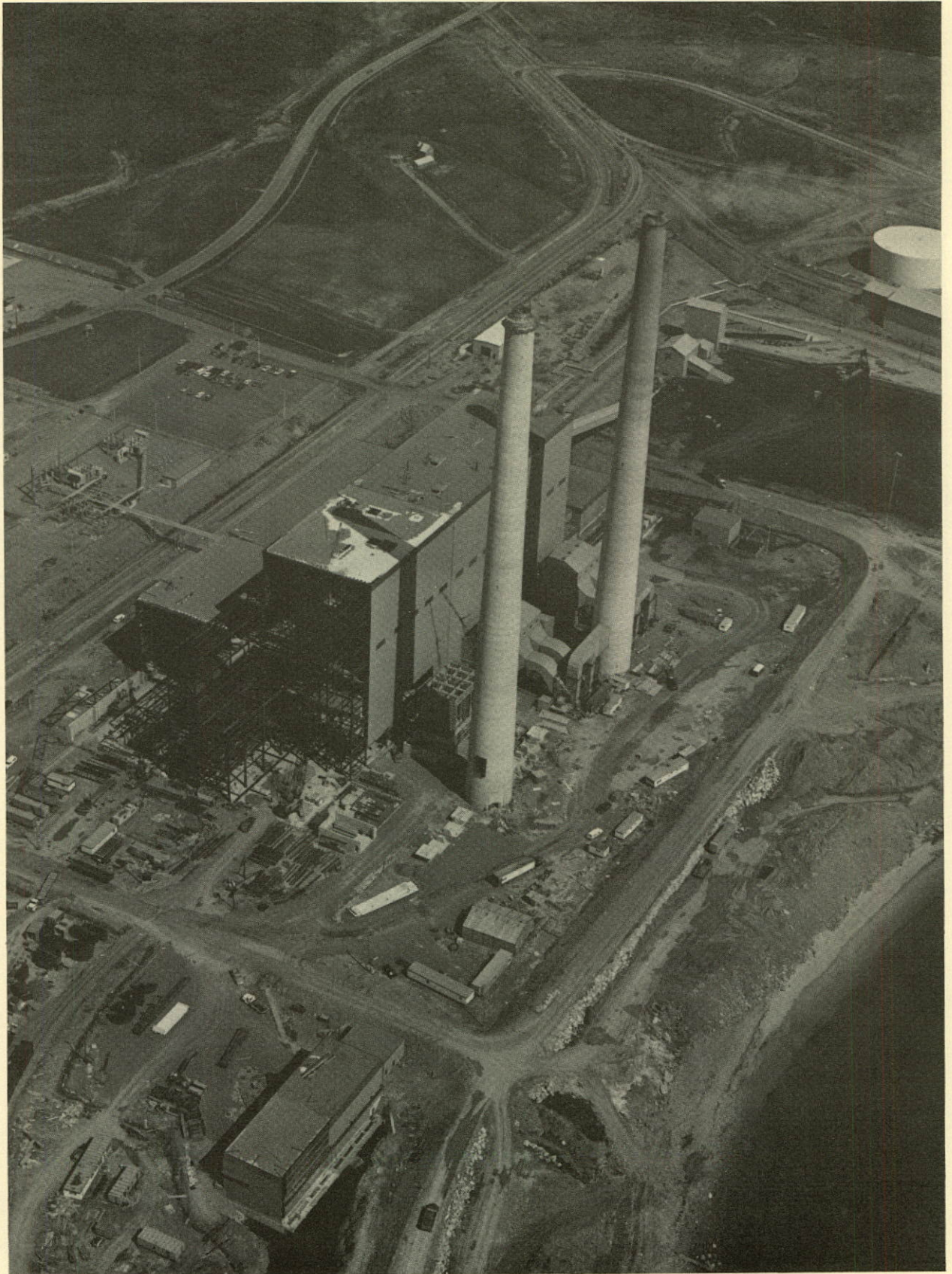
Last year I indicated that the 1980-81 annual report would be my final one as my retirement was scheduled for last October. Subsequently, I was asked to remain as president until the completion of this fiscal period. I was pleased to accept this extension as it enabled me to continue my association with the men and women of the Power Corporation.

Now that I have taken my leave, I can only reiterate my appreciation for the dedication of all employees and the guidance of the Corporation's Board of Directors.



President and Chief Executive Officer



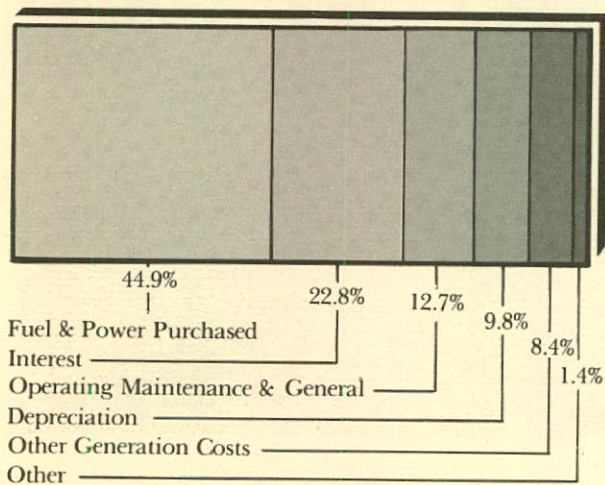


*Lingan generating station.*

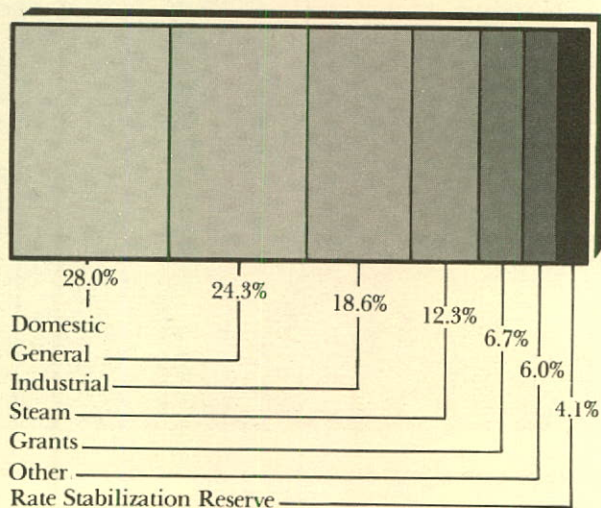


Financial Statistics	1982 (in thousands)	1981	Per cent Change
Net Earnings (Loss)	\$(16,313)	\$ 471	(3463.5)
Total Revenue	356,322	357,719	(0.4)
Electric Revenue	301,219	304,418	(1.1)
Steam Revenue	48,905	48,596	0.6
Total Cost of Operations	307,205	276,151	11.2
Fuel	171,819	159,839	7.5
Interest	90,916	89,284	1.8
Total Source of Working Capital	140,564	121,012	16.2
Net Proceeds from Long Term Borrowing	100,488	49,061	104.8
Total Use of Working Capital	133,816	89,619	49.3
Net Additions to Fixed Assets	90,298	37,467	141.0

**Total Expenses**  
1982 — \$399 million



**Providing for Expenses**  
1982 — \$399 million





### Financial Review

The Corporation's financial results for fiscal 1982 should be reviewed against a background of cost escalations, increasing interest rates, a recessionary economy and provincial government assistance which permitted electric service rates to remain unchanged.

Although sales increased 0.88% electric revenue declined due to the inclusion of some \$6.276 millions of deferred revenue in fiscal 1981. Domestic and general service categories experienced some growth but, due to the downturn in the economy, industrial sales decreased and limited overall growth.

Cost of operations increased \$31.1 million or 11.2% with fuel and purchased power combined representing some \$17.4 million of the total increase. Oil price escalations and increased oil-fired generation during a strike in the coal industry were the basic reasons for the fuel cost increase.

Fortunately, the Corporation was able to transact advantageous power purchases and also enjoyed record hydro generation of 1 143 GWh, up 23.8% over the previous year. In the absence of these events, fuel costs would have risen substantially.

Other generation costs, operating, maintenance and general expenses rose \$11.9 million. Increased maintenance programs and inflation were the primary reasons for the increase. The work force remained relatively constant during the year with twenty additional employees added to bring total staff to 2 568.

In the face of high inflation rates and a recessionary economy, the Corporation recognized that it must adopt improved methods of controlling the rate of increase in costs and develop means to more efficiently manage the resources required to service customers. As part of this process, a zero-based budgeting system has now been implemented.

Depreciation expense went up \$1.5 million or 4.1% reflecting a complete year's depreciation on Lingan Unit 2, which became operational June 5, 1980, and the impact of other projects placed in service during the 1982 fiscal year.

Interest expense was \$90.9 million during 1982, the Corporation's second largest expense item.

The Corporation placed two bond issues during the year. The first transaction was for \$75 million at 15-1/2% for a 10 year term, retractable to 5 years, placed on the Canadian public market and the second issue was \$25 million at 15-3/4% for a 6 year term with the Alberta Heritage Trust Fund. The proceeds of these issues were required to finance additions to fixed assets.

The loss incurred by the Corporation for fiscal 1982 was \$43,118,000. This loss was funded by grants of \$26,805,000 received from the Province during the year and \$16,313,000 previously provided by the Province and carried in the Rate Stabilization Reserve.

The Corporation does not anticipate an increase in electric service rates during calendar 1982. An application will be made to the Board of Commissioners of Public Utilities for the Province of Nova Scotia for an increase in rates effective January 1, 1983.



## Auditors' Report

To the Board of Directors  
Nova Scotia Power Corporation

We have examined the consolidated balance sheet of Nova Scotia Power Corporation as at March 31, 1982, and the consolidated statements of operations, retained earnings, rate stabilization reserve and changes in financial position for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests and other procedures as we considered necessary in the circumstances.

In our opinion these consolidated financial statements present fairly the financial position of the Corporation as at March 31, 1982 and the results of its operations and the changes in its financial position for the year then ended in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

*Peat, Marwick, Mitchell & Co.*

Chartered Accountants

Halifax, Canada  
June 4, 1982



## Consolidated Statement of Operations

for the year ended March 31, 1982 with comparative figures for 1981

	1982	1981
	(in thousands)	
Revenue		
Electric — note 6	\$301,219	\$304,418
Steam	48,905	48,596
Other	6,198	4,705
	<u>356,322</u>	<u>357,719</u>
Cost of operations		
Power generated — fuel	171,819	159,839
— other	33,494	30,246
Power purchased	7,644	2,190
Operating, maintenance and general	50,668	42,061
Grants in lieu of taxes	4,405	4,169
Depreciation	39,175	37,646
	<u>307,205</u>	<u>276,151</u>
Earnings before the following	49,117	81,568
Interest — note 7	90,916	89,284
Amortization of Wreck Cove deferral	1,319	1,318
Loss before grants	43,118	9,034
Grants from Province of Nova Scotia	26,805	9,505
Net earnings (loss)	<u>\$(16,313)</u>	<u>\$ 471</u>

*See accompanying summary of significant accounting policies and notes to consolidated financial statements.*



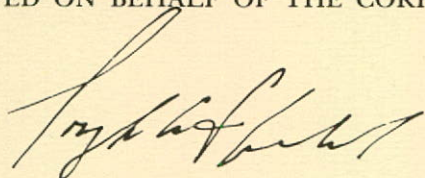
## Consolidated Balance Sheet

as at March 31, 1982 with comparative figures for 1981

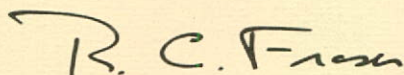
### ASSETS

	1982	1981
	(in thousands)	
Fixed assets		
Property, plant and equipment in service	\$1,163,553	\$1,131,493
Less accumulated depreciation	<u>316,661</u>	<u>281,493</u>
	846,892	850,000
Construction work in progress	<u>65,877</u>	<u>11,646</u>
	<u>912,769</u>	<u>861,646</u>
Current assets		
Cash	96	95
Short-term investments at cost	20,000	12,000
Accounts receivable	49,050	61,515
Unbilled revenue	28,514	27,471
Inventories at cost	42,586	42,858
Prepaid expenses	<u>310</u>	<u>990</u>
	<u>140,556</u>	<u>144,929</u>
Long-term receivables	8,502	8,900
Deferred charges less amortization		
Financing costs	14,796	15,441
Other	<u>1,238</u>	<u>3,052</u>
	<u>16,034</u>	<u>18,493</u>
	<u>\$1,077,861</u>	<u>\$1,033,968</u>

APPROVED ON BEHALF OF THE CORPORATION



Chairman



Vice-President and Chief Financial Officer



## Consolidated Balance Sheet

as at March 31, 1982 with comparative figures for 1981

### LIABILITIES AND EQUITY

	1982	1981
	(in thousands)	
Long-term debt		
Notes		
Province of Nova Scotia — note 1	\$ 70,976	\$ 71,950
Government of Canada — note 2	55,201	56,629
Other	1,155	—
Bonds and debentures — note 3	928,964	853,063
	<u>1,056,296</u>	<u>981,642</u>
Less		
Payable within one year — note 4	21,615	35,135
Sinking funds — note 5	81,550	64,532
	<u>103,165</u>	<u>99,667</u>
	953,131	881,975
Current liabilities		
Bank indebtedness	3,243	8,785
Accounts payable and accrued charges	31,888	26,823
Customers' deposits and accrued interest	1,604	1,740
Accrued interest on long-term debt	31,060	28,048
Long-term debt payable within one year	21,615	35,135
	<u>89,410</u>	<u>100,531</u>
Deferred credits	3,523	3,352
Equity		
Contributed surplus	13,327	13,327
Rate stabilization reserve	9,664	25,977
Retained earnings	8,806	8,806
	<u>31,797</u>	<u>48,110</u>
	<u>\$1,077,861</u>	<u>\$1,033,968</u>

Commitments — note 9

*See accompanying summary of significant accounting policies and notes to consolidated financial statements.*



**Consolidated Statement of Retained Earnings**  
for the year ended March 31, 1982 with comparative figures for 1981

	1982	1981
	(in thousands)	
Balance at beginning of year	\$ 8,806	\$ 8,806
Net earnings (loss)	<u>(16,313)</u>	<u>471</u>
	(7,507)	9,277
Appropriations from (to) rate stabilization reserve	<u>16,313</u>	<u>(471)</u>
Balance at end of year	<u>\$ 8,806</u>	<u>\$ 8,806</u>

**Consolidated Statement of Rate Stabilization Reserve**  
for the year ended March 31, 1982 with comparative figures for 1981

	1982	1981
	(in thousands)	
Balance at beginning of year	\$ 25,977	\$ 9,331
Appropriation (to) from retained earnings	(16,313)	471
Grant from Province of Nova Scotia	<u>—</u>	<u>16,175</u>
Balance at end of year	<u>\$ 9,664</u>	<u>\$25,977</u>

*See accompanying summary of significant accounting policies and notes to consolidated financial statements.*



## Consolidated Statement of Changes in Financial Position

for the year ended March 31, 1982 with comparative figures for 1981

	1982	1981
	(in thousands)	
Source of working capital		
Operations		
Net earnings (loss)	\$(16,313)	\$ 471
Items not requiring an outlay of funds		
Depreciation	39,175	37,646
Amortization of deferred charges	3,125	3,569
	<u>25,987</u>	<u>41,686</u>
Decrease in long-term debt payable within one year	13,520	—
Provincial rural electrification payment	—	13,327
Provincial grant for rate stabilization	—	16,175
Proceeds from long-term borrowings less discount	100,488	49,061
Other transactions	569	763
	<u>140,564</u>	<u>121,012</u>
Use of working capital		
Net additions to fixed assets	90,298	37,467
Repayment of long-term debt	26,500	26,357
Increase in sinking funds on long-term debt	17,018	14,019
Increase in long-term debt payable within one year	—	3,988
Increase in long-term receivables	—	7,788
	<u>133,816</u>	<u>89,619</u>
Increase in working capital	6,748	31,393
Working capital at beginning of year	<u>44,398</u>	<u>13,005</u>
Working capital at end of year	<u>\$ 51,146</u>	<u>\$ 44,398</u>

*See accompanying summary of significant accounting policies and notes to consolidated financial statements.*



## Summary of Significant Accounting Policies

### Consolidation

The consolidated financial statements include the accounts of Nova Scotia Power Corporation and its wholly-owned subsidiaries, Nova Scotia Light and Power Company, Limited and Eastern Light & Power Company Limited.

### Regulation

The Corporation is a crown corporation of the Province of Nova Scotia engaged in the production and sale of electric energy and steam, and is regulated by the Board of Commissioners of Public Utilities for the Province of Nova Scotia pursuant to the Public Utilities Act.

### Property, Plant and Equipment

The property, plant and equipment of the Corporation are recorded at original cost net of contributions in aid of construction. Expenditures for additions, replacements and improvements, which are comprised of direct labour, material, engineering, and related overhead costs, are capitalized whereas repairs and maintenance are charged to operations. Interest on funds used during construction is capitalized monthly at an interest rate which represents the effective cost of capital determined at the preceding fiscal year end. For property replaced or renewed the original cost plus removal cost less salvage is charged to accumulated depreciation.

The excess of the Corporation's investment over the book value of subsidiaries and acquired power utilities was \$30,197,000. This amount is being amortized on a straight line basis over terms ranging from 11-30 years. At March 31, 1982, the unamortized value included in the fixed assets of the Corporation was \$17,544,000.

Depreciation is provided for by the Corporation on a straight line basis, based on useful life. The estimated useful lives for the main categories of plant in service are summarized as follows:

<b>Classification</b>	<b>Useful Life in Years</b>
Hydraulic Generating Stations	40
Thermal Generating Stations	28 1/2
Gas Turbine Generating Stations	20
Transmission	33
Distribution and General Property	26

Depreciation expense for the year ended March 31, 1982 included \$1,195,000 representing amortization of excess of investment over book value of acquired utilities.



## **Summary of Significant Accounting Policies**

### **Financing Costs**

The Corporation amortizes the expenses, discounts, or premiums of securities issues to operations in equal amounts over the period to maturity or early maturity option of the issue to which they pertain.

### **Foreign Exchange**

Long-term debt repayable in foreign currencies, including long-term debt payable within one year, is translated to Canadian currency at the rate of exchange at time of issue. Realized exchange gains or losses are included with interest expense in the consolidated statement of operations.

Accrued interest on the long-term foreign debt is recorded at exchange rates prevailing at year end and the resulting unrealized exchange losses are included with interest expense in the consolidated statement of operations.



## Notes to Consolidated Financial Statements

March 31, 1982

### 1. LONG-TERM NON-CALLABLE NOTES PAYABLE TO THE PROVINCE OF NOVA SCOTIA

1982                      1981  
(in thousands)

Loans made by the Province up to November 30, 1962 are repayable in equal annual installments including principal and interest, and mature on varying dates from 1988 to 2001.

Included in these loans are notes of \$5,240,000 which contain a provision to refinance the remainder of the loan balance on varying dates from 1983 to 1991 at the rate of interest then to be determined. The composite rate of interest for these loans is 8.74 per cent per annum (7.78% - 1981).

\$17,976                      \$18,950

Loans made by the Province after November 30, 1962 are repayable on a sinking fund basis with one-half of the loan payable in the twentieth year and the balance payable in the fortieth year, and mature on varying dates from 2003 to 2011.

These loans contain a provision for refinancing on varying dates from 1983 to 1992 at the rate of interest then to be determined. The composite rate of interest for these loans is 7.55 per cent per annum (7.55% - 1981).

53,000                      53,000  
\$70,976                      \$71,950

### 2. LONG-TERM NON-CALLABLE NOTES PAYABLE TO GOVERNMENT OF CANADA

Loans from the Government of Canada are repayable in equal annual installments including principal and interest and mature on varying dates from 1992 to 2012. The composite rate of interest for these loans is 6.71 per cent per annum (6.70% - 1981).

\$55,201                      \$56,629



## Notes to Consolidated Financial Statements

March 31, 1982

### 3. BONDS AND DEBENTURES

Nova Scotia Power Corporation debentures  
(guaranteed by Province of Nova Scotia)

Serial Letter	Interest Rate %	Date of Maturity		1982	1981
				(in thousands)	
A	5 5/8	Mar. 1, 1992		\$ 426	\$ 426
B	6 1/4	Mar. 1, 1992		2,500	2,500
C	7	Mar. 1, 1992		690	690
D	7 3/4	Mar. 15, 1997	(U.S. \$40,000,000)	39,889	39,889
E	8 1/8	Nov. 15, 1992		30,000	30,000
F	7	Dec. 1, 1987	(DM 65,000,000)	20,244	23,358
G	8 1/8	July 15, 1998	(U.S. \$30,000,000)	29,961	29,961
H	8 1/4	May 1, 1984	(U.S. \$ 4,000,000)	3,927	3,927
J	8 3/8	May 1, 1986-94	(U.S. \$23,500,000)	22,929	22,929
K	9 1/2	July 1, 1982-94		5,480	18,000
L	10 1/2	Sept. 15, 2000	(U.S. \$50,000,000)	51,230	51,230
M	10	Mar. 1, 2001		50,000	50,000
N	6 3/4	May 10, 1991	(SF 78,950,000)	31,037	31,156
O	9 3/4	Oct. 21, 2001		50,000	50,000
P	9 3/4	Nov. 1, 2001		5,000	5,000
Q	9 1/4	Feb. 22, 2002		50,000	50,000
R	9 1/4	Feb. 22, 2002		5,000	5,000
S	9 1/4	July 21, 2002		50,000	50,000
T	9 1/4	July 21, 2002		5,000	5,000
U	9.45	Dec. 1, 2002		15,000	15,000
V	9 3/8	Jan. 10, 2003		50,000	50,000
W	9 5/8	June 1, 2008	(U.S. \$75,000,000)	84,034	84,034
X	10	Dec. 21, 1998		50,000	50,000
Y	9 3/4	May 15, 1989	(U.S. \$45,800,000)	53,192	55,631
Z	11 1/4	Jan. 4, 2000		50,000	50,000
AA	11 1/2	July 15, 2005		50,000	50,000
AB	15 1/2	Dec. 15, 1991-86		75,000	—
AC	15 3/4	Jan. 28, 1988		25,000	—
				<u>905,539</u>	<u>823,731</u>

Nova Scotia Light and Power Company, Limited first mortgage sinking fund bonds (now unsecured but guaranteed by the Corporation and Province of Nova Scotia).

5 3/4	Apr. 1, 1984	7,238	7,424
6	Apr. 1, 1986	3,828	3,942
8 1/2	Apr. 15, 1991	10,224	10,474
9 3/4	Jan. 2, 1982	—	5,322
		<u>21,290</u>	<u>27,162</u>



## Notes to Consolidated Financial Statements

March 31, 1982

### 3. BONDS AND DEBENTURES (Continued)

Eastern Light & Power Company Limited first mortgage sinking fund bonds (now unsecured but guaranteed by the Corporation and Province of Nova Scotia)

Serial Letter	Interest Rate %	Date of Maturity	1982	1981
			(in thousands)	
A	5 3/4	Jan. 2, 1985	\$ 2,125	\$ 2,150
Caledonia Power and Water Board Serial debentures				
	5 3/4	July 1, 1982	10	20
			2,135	2,170
			<u>\$928,964</u>	<u>\$853,063</u>

Bonds and debentures repayable in foreign currencies are translated to Canadian currency at the rate of exchange at time of issue. If the bonds and debentures repayable in foreign currencies were translated to Canadian currency at March 31, 1982 the total of \$928,964,000 would be increased by \$76,879,000 to \$1,005,843,000 (At March 31, 1981, the total of \$853,063,000 would have been increased by \$70,637,000 to \$923,700,000).

The bonds and debentures are redeemable as provided under the terms of the respective issues.

### 4. LONG-TERM DEBT MATURITIES

Long-term maturities and sinking fund requirements, including those in foreign currencies, in respect of long-term debt outstanding at March 31, 1982 are as follows:

Year Ending March 31	Canadian Equivalent at Time of Issue	Canadian Equivalent at March 31, 1982
		(in thousands)
1983	\$ 21,615	\$ 25,273
1984	26,144	29,947
1985	35,212	40,009
1986	23,795	27,660
1987	110,006	118,550
	<u>\$216,772</u>	<u>\$241,439</u>



## Notes to Consolidated Financial Statements

March 31, 1982

### 5. SINKING FUNDS

Sinking funds, including those in foreign currencies, consist of securities and cash held by the Corporation and trustees for the redemption of certain debt issues. Certain issues of bonds and debentures requiring annual redemption for sinking fund purposes provide that the Corporation may satisfy its obligation by purchasing bonds or debentures on the open market at any time prior to the due date at prices not exceeding 100% of the principal amount thereof. Bonds and debentures purchased during the year and not yet cancelled amount to \$3,173,000. The gain resulting from these transactions is included in other revenue.

If the sinking funds in foreign currency were translated to Canadian currency at March 31, 1982, the total of \$81,550,000 would be increased by \$7,906,000 to \$89,456,000. (At March 31, 1981, the total of \$64,532,000 would have been increased by \$5,098,000 to \$69,630,000).

### 6. ELECTRIC REVENUE

Electric revenue includes payments from the Province of Nova Scotia, of rate assistance on behalf of Corporation customers, of \$20,792,000 for the current year (\$20,605,000 - 1981).

Electric service is provided to the Province of Nova Scotia and its agencies at the appropriate class rates as approved by the Board of Commissioners of Public Utilities for the Province of Nova Scotia.

### 7. INTEREST

	1982	1981
	(in thousands)	
Interest on long-term debt	\$ 91,841	\$ 89,011
Amortization of financing costs	1,311	1,755
Interest on short-term borrowings	2,387	186
Foreign exchange loss	8,229	11,845
Other	184	183
	<u>103,952</u>	<u>102,980</u>
Less		
Interest charged to construction	2,398	2,346
Sinking fund earnings	7,178	5,230
Other investment income	3,460	6,120
	<u>13,036</u>	<u>13,696</u>
	<u>\$ 90,916</u>	<u>\$ 89,284</u>



## Notes to Consolidated Financial Statements

March 31, 1982

### 8. RELATED PARTY TRANSACTIONS

Related party transactions are disclosed elsewhere in the consolidated financial statements.

### 9. COMMITMENTS

- (a) As at March 31, 1982, the Corporation was constructing generation, transmission and other facilities estimated to cost approximately \$333 million of which approximately \$51 million has been expended and an additional \$135 million has been committed under contract.
- (b) The Corporation is committed to operating leases of equipment and office premises which range in length from three to nine years. Minimum lease payments over the next three years will amount to \$2.1 million annually. Lease expenses charged to operations during the current year were \$2.2 million (\$2.3 million - 1981).
- (c) The Corporation's employees are covered by the Public Service Superannuation Plan of the Province of Nova Scotia under which contributions are made equally by the Corporation and the employees. Employees of Nova Scotia Light and Power Company, Limited became employees of the Corporation on April 1, 1973, at which time pension benefits under the Nova Scotia Light and Power Company, Limited pension plan were vested, subject to the requirements as to length of service, and such employees became members of the Public Service Superannuation Plan. The Corporation provides supplemental pension benefits to employees of other acquired utilities additional to those which are payable under the existing plans.

According to the most recent actuarial valuation, completed in November, 1981, \$11 million of past service liability under the supplemental pension plan is unfunded. The annual amount required to fund all past service costs of the pension plan is \$1 million for 20 years. For the year ended March 31, 1982, the Corporation has provided for this amount in the consolidated statement of operations.

### 10. COMPARATIVE FIGURES

Certain of the 1981 figures, presented for comparative purposes, have been reclassified to conform with the presentation adopted for the year ended March 31, 1982.



## Comparative Statistics

(For Twelve Month Period Ended March 31)

	1982	1981	1980	1979	1978
<b>Electric Energy Generated &amp; Purchased</b>					
<b>(Thousand kW·h):</b>					
Generated (net)	6,194,731	6,407,474	5,806,710	5,698,046	5,313,540
Purchased	284,886	116,866	319,580	265,608	348,049
	<u>6,479,617</u>	<u>6,524,340</u>	<u>6,126,290</u>	<u>5,963,654</u>	<u>5,661,589</u>
Losses & Internal Use	576,209	530,922	407,888	441,730	422,464
Electric Energy Sold	<u>5,903,408</u>	<u>5,993,418</u>	<u>5,718,402</u>	<u>5,521,924</u>	<u>5,239,125</u>
<b>Energy Sales Billed (Thousand kW·h):</b>					
Domestic Service	1,904,947	1,868,208	1,790,077	1,755,402	1,741,588
General Service	1,617,079	1,573,053	1,514,541	1,470,427	1,453,893
Industrial Power	2,045,931	2,089,092	2,071,989	1,974,683	1,740,859
Municipalities	176,752	185,203	254,880	239,509	234,154
Unmetered Services	70,545	70,117	67,376	66,369	63,156
	<u>5,815,254</u>	<u>5,785,673</u>	<u>5,698,863</u>	<u>5,506,390</u>	<u>5,233,650</u>
Total In-Province Billed Energy Sales	5,815,254	5,785,673	5,698,863	5,506,390	5,233,650
Increase in Unbilled Sales	8,958	27,740	11,258	4,411	3,312
Grid Sales	79,196	180,005	8,281	11,123	2,163
	<u>5,903,408</u>	<u>5,993,418</u>	<u>5,718,402</u>	<u>5,521,924</u>	<u>5,239,125</u>
Total Electric Energy Sales	<u>5,903,408</u>	<u>5,993,418</u>	<u>5,718,402</u>	<u>5,521,924</u>	<u>5,239,125</u>
<b>Electric Revenue Billed (Thousand \$):</b>					
Domestic Service	\$ 111,987	\$ 109,782	\$ 101,029	\$ 85,744	\$ 75,885
General Service	97,120	94,337	87,828	75,666	67,707
Industrial Power	74,262	73,128	69,865	57,028	46,656
Municipalities	6,928	7,280	9,770	8,034	7,184
Unmetered Services	7,426	7,253	7,022	6,210	5,479
	<u>297,723</u>	<u>291,780</u>	<u>275,514</u>	<u>232,682</u>	<u>202,911</u>
Total In-Province Electric Revenue	297,723	291,780	275,514	232,682	202,911
Increase in Unbilled Revenue	1,040	1,335	3,390	3,689	2,023
Grid Sales	2,456	5,023	252	671	60
Deferred Revenue	—	6,276	(6,276)	—	—
	<u>\$ 301,219</u>	<u>\$ 304,418</u>	<u>\$ 272,876</u>	<u>\$ 237,042</u>	<u>\$ 204,994</u>
Total Electric Revenue	<u>\$ 301,219</u>	<u>\$ 304,418</u>	<u>\$ 272,876</u>	<u>\$ 237,042</u>	<u>\$ 204,994</u>
<b>Average Unit Revenue per kW·h Billed</b>					
Domestic Service	5.88¢	5.88¢	5.64¢	4.88¢	4.36¢
General Service	6.01¢	6.00¢	5.80¢	5.15¢	4.66¢
Industrial Power	3.63¢	3.50¢	3.37¢	2.89¢	2.69¢
Municipalities	3.92¢	3.93¢	3.83¢	3.35¢	2.33¢
Unmetered Service	10.53¢	10.34¢	10.42¢	9.36¢	11.38¢
All Classifications Combined	5.12¢	5.04¢	4.83¢	4.23¢	3.88¢
Number of Employees	2,568	2,548	2,578	2,568	2,536
Number of Customers	328,856	323,014	310,759	303,456	296,084
km of Transmission Lines (69 kV & Over)	4,435	4,452	4,262	3,950	3,863
km of Distribution Lines (36 kV & Under)	20,536	19,741	19,440	19,153	18,860
Cost of Fuel (Thousand \$) — Coal	\$ 55,848	\$ 61,809	\$ 39,376	\$ 31,462	\$ 20,971
Oil	115,971	98,030	90,002	94,892	72,458
	<u>\$ 171,819</u>	<u>\$ 159,839</u>	<u>\$ 129,378</u>	<u>\$ 126,354</u>	<u>\$ 93,429</u>
Total	<u>\$ 171,819</u>	<u>\$ 159,839</u>	<u>\$ 129,378</u>	<u>\$ 126,354</u>	<u>\$ 93,429</u>



## Review of Operations

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During the year favourable progress was made on new generating installations in the western and eastern areas of the province.

At Lingan, the construction of two 150-megawatt coal-fired units proceeded on schedule. All of the major equipment was on order, a number of major contracts issued and at fiscal year-end the superstructure for Unit 3 and the powerhouse foundation for Unit 4 were essentially complete. When operational in late 1984 these units, combined with Unit 1 and 2, will use in excess of 1.6 million tons of coal annually displacing 6 million barrels of imported oil.

Work continued on the installation of a 3.5 megawatt generating unit on the Gisborne canal in the Wreck Cove system. The powerhouse was completed and the installation of generation equipment was well underway. When in production in 1982, this unit will add another 12 million kilowatt hours annually to the output of the Wreck Cove hydro development.

In western Nova Scotia, site work was started on a 3.0 megawatt hydro unit at Fourth Lake. An access road was constructed to the site and excavation for the powerhouse was completed. At the Annapolis Tidal Power Project, powerhouse excavation was completed and by year end approximately 83 per cent of the powerhouse concrete had been placed. The turbine, which is being built in Lachine, Que. will arrive at the Annapolis site in September 1982, and assembly will take place over the winter months.



Total energy requirements needed to supply the provincial power system amounted to 6 400 421 499 kilowatt hours, a slight increase over the previous year. The annual system peak was recorded at 1 213 megawatts on January 18, 1982, the first time the system load has reached the 1 200 megawatt level.

For the second consecutive year coal was the major fuel used for electrical generation. It accounted for 41.15 per cent of system energy requirements as compared to 36.83 per cent for oil. Of the 1.45 million tons of coal used during the year, 57 per cent or 830 543 tons were consumed at Lingan.

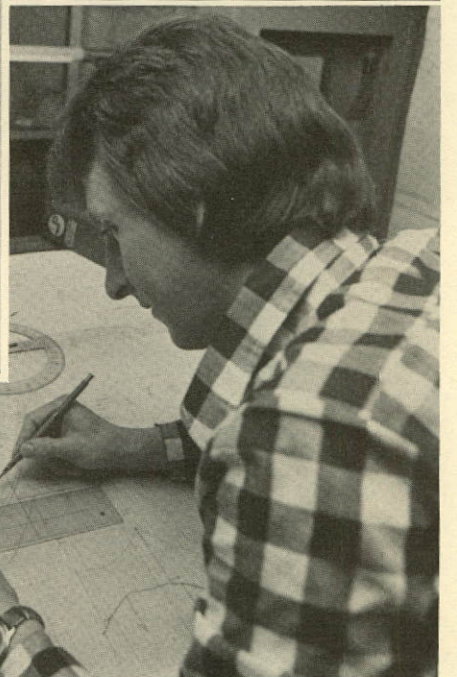
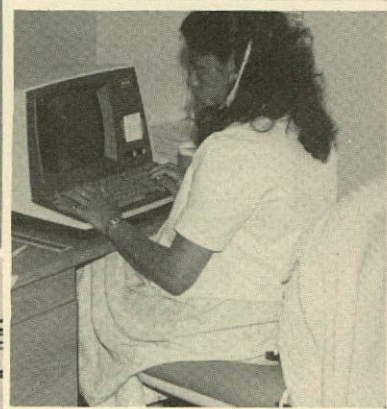
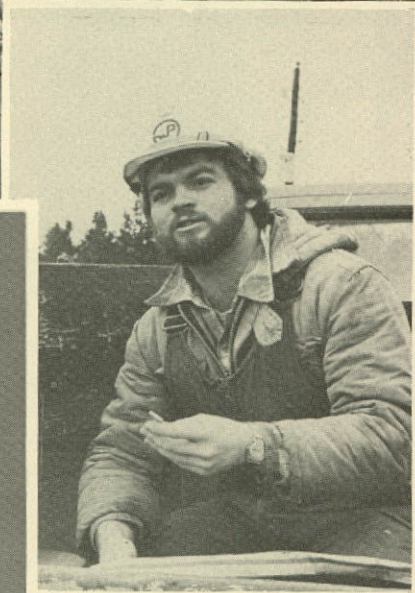
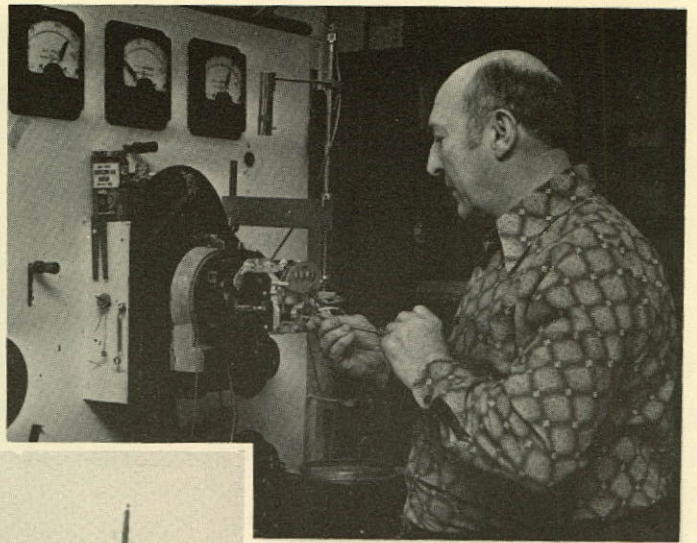
Output from the Corporation's hydro plants amounted to 1.14 billion kilowatt hours establishing a new hydro production record. This surpassed the previous record set in 1979-80 by 51.89 million kilowatt hours or 4.75 per cent. The Wreck Cove facility again led the way in hydro production with an output of 337 million kilowatt hours followed by the Mersey system located in the western part of the province which generated 296 million kilowatt hours.

Total interchange with the New Brunswick Electric Power Commission of over 364 million kilowatt hours was the second highest on record. The interchange, valued in excess of \$10 million, realized a net benefit to the Corporation of \$2.3 million. The current interconnection agreement between the Corporation and the New Brunswick Electric Power Commission signed in 1960 expires in fiscal 1983 and in its place a new interconnection agreement will be negotiated.



In other areas of construction, a new 230 000 volt transmission line scheduled for completion in 1982, was being built between Lingan and Port Hastings and right-of-way clearing for the section of 230 000 volt line between Port Hastings and Onslow was in progress. In addition, a section of 69 000 volt line was constructed for the new Michelin plant at Waterville. Planning and design was also well advanced for a major overhead transmission line crossing of the Strait of Canso.







The rebuilding of transmission lines continued throughout the year with one of the three high voltage transmission lines between Onslow and Trenton rebuilt, along with a section of 69 000 volt line near Guysborough. In addition, seven transmission lines were upgraded to permit adequate clearance at higher operating temperatures. The total value of transmission work completed during fiscal 1982 amounted to \$7 million.

In conjunction with new generation at Lingan, a further \$21.3 million was committed to increase transmission capacity between Lingan and Halifax. Engineering design, equipment purchases and construction of substations were proceeding on schedule to meet the in-service dates for Units 3 and 4. Additionally, in the western part of the province \$7.8 million was committed for new substation facilities at Bridgewater. Construction was initiated during the year with completion scheduled for late 1984 to coincide with the availability of new economic generation from Lingan.



Capital expenditures for distribution facilities to deliver power to our 328 856 customers amounted to \$23.5 million. This included \$5.5 million for necessary replacements, conversions and improvements, and \$18 million to provide service to new customers and maintenance of an adequate level of service to existing customers.

Operating and maintenance expenditures on the distribution and transmission system were higher than anticipated. This was principally attributed to severe storm conditions in January and February.



Following significant investigative studies the Corporation, in conjunction with Energy, Mines and Resources Canada, is in the process of designing and building an atmospheric fluidized bed coal test unit at Point Tupper. The main objective is to investigate corrosion/erosion characteristics of in-bed tubes by means of a long term (10 000 hour) test program. This research and development undertaking is being closely co-ordinated with the Tennessee Valley Authority's test program on a 20-megawatt

atmospheric fluidized bed boiler. The exchange of information between the two utilities will be of paramount importance in reducing the costs of both studies.

The Maritime electric utilities have established a research and development sub-committee to study problems common to the region. In recognition of this commitment, the Corporation has created its own internal research and development steering committee to co-ordinate the Corporation's activities in these areas.



The Corporation continued to utilize the latest technological advances in system operations. In February an additional computer was installed at the Provincial Control Centre in Halifax to supplement the existing supervisory control and data acquisition system (SCADA).

The two computer systems, when linked together, provide continuously updated information and permit such functions as short and long term load forecasting, hydro and thermal optimization, contingency analysis and the calculation of generation dispatch for the lowest fuel cost.

It will also allow the power system operator to simulate the effects of a switching operation before it is actually done. The installation of the system and its interconnection with the SCADA computers was done by Corporation staff.

In another area, an extensive system of fibre optics has been installed, greatly improving the performance of the Corporation's microwave network which is a vital component in the total communication and control system. It is believed that the introduction of these various fibre optic systems constitutes the most extensive use of this technique by North American power utilities.



The Corporation continued to promote the wise and effective use of energy by providing information to assist customers. This information was communicated through mailers, TV advertising and demonstrations at fairs and exhibitions.



In addition the "Wise and Effective Use of Electricity in the Home" program was extremely popular throughout the province with over 10-000 consumers attending the 40 presentations. These events are also used by the local sponsors as a means of raising funds for charitable purposes within the community.

The Corporation's energy management staff provided home energy audits for customers, advising them on methods to reduce energy losses as well as providing information on home energy management such as lighting, water heating and energy efficient appliances.

The Corporation maintained its active participation in the national "Energy Efficient Home Program". As the cost of home heating fuel continued to rise, many customers were provided with technical information on heating design and insulation requirements for new home construction. Customer requests in this

area and electric conversions increased by 55 per cent over the previous year.



Health and safety continued to be emphasized within the Corporation including safety training, safety observations and inspections, and an improving trend was evident at year end.

In keeping with the Corporation's objective to have all operating personnel qualified in emergency first aid procedures, over 500 employees received St. John Ambulance First Aid Training. Also, some 300 employees participated in defensive driving and professional driver improvement courses. Labour-management relations were carried out in a positive atmosphere as a concerted effort was made to resolve problems to the mutual benefit of both employees and the Corporation. The past year showed a decrease in the number of employee grievances and arbitration cases.



## L. F. K. Retires

On April 30, 1982 Lesmere Forrest Kirkpatrick, D.S.O., D.Eng., P.Eng., FEIC, retired as President and Chief Executive Officer of the Nova Scotia Power Corporation after twenty-seven years of service. Shortly following his retirement Mr. Kirkpatrick was honoured by fellow employees, members of the business community and the Corporation's Board of Directors. In addition, the Board of Directors established the L. F. Kirkpatrick Scholarship at the Technical University of Nova Scotia in recognition of his "distinguished and dedicated service and leadership as an employee, officer and director from 1955 to 1982".

*Dr. Kirkpatrick, left, receives congratulations and best wishes from John Laffin, Deputy Minister, Nova Scotia Department of Mines and Energy and former Administrative Assistant to Dr. Kirkpatrick.*





## Corporate Information

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### Board of Directors 1981/82

Allen F. Bruce  
*Truro*

Louis R. Comeau  
*Church Point*

C. J. (Jake) Creighton  
*Dartmouth*

Robert A. Damery  
*Bridgewater*

Lloyd K. Hill  
*Port Williams*

Dr. Lesmere F. Kirkpatrick  
*Halifax*

G. Douglas Macdonald  
*New Glasgow*

Joseph A. F. Macdonald  
*Chairman*  
*Halifax*

James G. MacDonald  
*Sydney*

G. James McCulloch  
*Halifax*

Cecil S. Smith  
*Liverpool*

M. Barbara Walker  
*Halifax*

### Officers 1981/82

Dr. Lesmere F. Kirkpatrick  
*President and Chief Executive Officer*

Gordon D. Mader  
*Senior Vice-President*

Robert C. Fraser  
*Vice-President and Chief Financial Officer*

Kenneth W. McGrail  
*Vice-President, Corporate and Public Affairs*

Daniel G. Brown  
*Vice-President, Planning*

Leonard J. Sweett  
*Vice-President, Operations*

Edward A. LeBlanc, Q.C.  
*Secretary and General Counsel*



**Head Office:**

Scotia Square  
1894 Barrington Street  
Halifax, Nova Scotia  
Telephone 902-424-6230  
Telex 019-21736

**Zone Headquarters:**

**Western —**  
Milton, Queens County

**Halifax —**  
Lakeside, Halifax County

**Central —**  
Stellarton, Pictou County

**Eastern —**  
Sydney, Cape Breton County

**Auditors:**

Peat, Marwick, Mitchell & Co.  
Halifax

**Bankers:**

Bank of Nova Scotia  
Royal Bank of Canada

**Solicitors:**

Cox, Downie, Nunn & Goodfellow  
Halifax

**Mailing Address:**

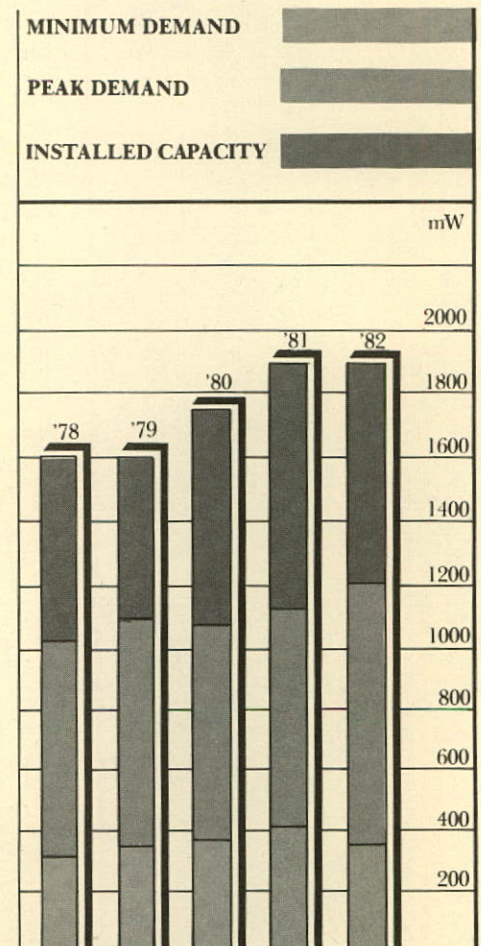
Post Office Box 910  
Halifax, Nova Scotia  
B3J 2W5

**Transfer Agent and Registrar:**

Banking and Corporate Trust Dept.  
Nova Scotia Power Corporation

**Generation Statistics** (for the twelve month period ended March 31, 1982)




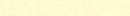
	Installed Capacity in kW	1981-82 Generation (kW·h × 1000)
<b>Steam</b>		
Tufts Cove	350,000	1,360,660
Lingan	300,000	2,079,300
Point Tupper	230,750	1,102,354
Trenton	210,000	775,543
Water Street	165,000	—
Glace Bay	96,000	105,963
Maccan	15,000	1,952
	<u>1,366,750</u>	<u>5,425,772</u>
<b>Gas Turbine</b>	168,575	2,202
<b>Hydro</b>		
Total 30 Plants	354,902	1,142,894
<b>Wind Turbine</b>		
	280	11
<b>Total Capacity</b>	<u>1,890,507</u>	
<b>Total Generation</b>		6,570,879
Less: Station Service		<u>376,148</u>
<b>Net Generation</b>		6,194,731
Purchases		284,886
Inter-Provincial Sales (to NBEPCC)		<u>(79,196)</u>
<b>Net Requirement</b>		<u>6,400,421</u>

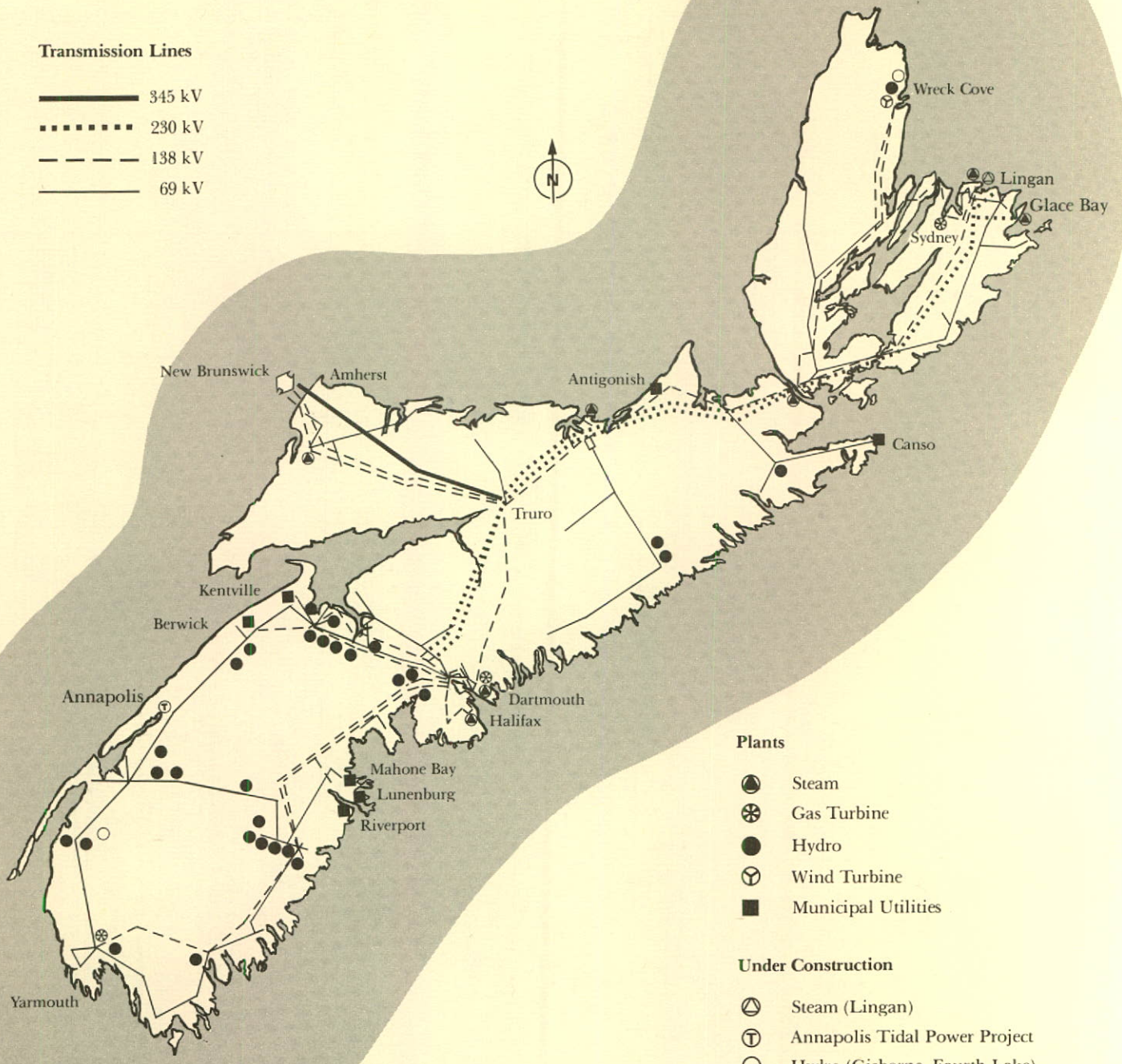









# System Map

## Transmission Lines




-  345 kV
-  230 kV
-  138 kV
-  69 kV



## Plants

-  Steam
-  Gas Turbine
-  Hydro
-  Wind Turbine
-  Municipal Utilities

## Under Construction

-  Steam (Lingan)
-  Annapolis Tidal Power Project
-  Hydro (Gisborne, Fourth Lake)







