

ELECTRICITY SUPPLY BOARD
BORD SOLÁTHAIR AN LEICTREACHAIS

Annual Report 86

ANNUAL REPORT FOR THE NINE MONTHS
ENDED 31st DECEMBER 1986

Pl.4910



Electricity Supply Board
Report and Accounts
for the nine months ended
31st December 1986



Moneypoint interior.



Soldering a low tension joint at Rathgar.

Contents

	Page
Review of Year	6
Accounts and Schedules	13
Statistics and Indicators	39

Tá leagan Gaeilge den Tuarascáil seo le fáil, ach é a iarraidh.

ESB INPUT TO IRELAND'S ECONOMY

	1982/83 £ millions	1983/84 £ millions	1984/85 £ millions	1985/86 £ millions	1986 (9 mths) £ millions
Fuel: Natural Gas, Peat, Native Coal	150	199	201	188	70
Irish Suppliers of Goods and Services including Capital Work	115	111	120	97	86
Government Tax on Oil	10	9	9	11	16
Rates Levy and Local Rates	17	23	25	26	20
Payroll Costs including Capital Projects	186	194	203	209	163
Interest paid to Irish Lenders & Stockholders	27	34	39	50	49
TOTAL	505	570	597	581	404

DATA SUMMARY	1985/86	1986 (9 mths)
FINANCIAL		
Financial Outcome. Surplus/(Deficit)	£(8)m	£6m
Income	£791m	£577m
Assets in Commission (before Depreciation)	£1,556m	£1,807m
Sales (Million Units)	9,788	7,295
Effective Generating Capacity (MW)	3,547	3,852
Peak Load (MW)	2,130	2,178
Customers	1,194,765	1,207,051
EMPLOYMENT		
Total Employment	12,114	11,763
Operations	9,193	9,402
New Works	2,345	1,882
Consultancy and Secondment	218	149
Apprentices	358	330
Pay	£170.5m	£134m
ESB Contribution to Pension Fund, PRSI and Expenses	£38m	£29m

Board Members

PROFESSOR C. T. G. DILLON, M.E., C.Eng., F.I.E.I., F.I.E.E., F.I.Mech.E., **Chairman**
S. CONERNEY
W. CREMINS
BETTY DILLON
P. J. KEVANS, Solicitor
J. LaCUMBRE
K. LYNCH, Dip.Eng.(Mech.), M.I.E., C.Eng., M.I.E.I.
W. McCANN, F.C.A.
C. McCARTHY, B.Comm., M.Econ.Sc.
P. J. MORIARTY, F.C.I.S., F.Mgt.I., F.I.P.M., F.I.E.I., **Chief Executive**
N. S. O'HARA, B.E., M.I.E., C.Eng., M.I.E.I.
J. WRYNN, B.Sc., B.Comm., M.B.A.

Directors

Strategic Planning and Development T. V. FAHY, B.E., C.Eng., F.I.P.M., F.I.E.I.
Customer Operations C. McCABE, B.E., C.Eng., F.I.E.I.
Generation and Transmission Operations A. G. KELLY, B.E., Ph.D., C.Eng., F.I.Mech.E., F.A.S.M.E., F.I.E.I.
Corporate Services F. A. MALIN, A.C.I.S.
Finance D. J. MORAN, F.C.M.A.

Secretary

J. F. WILLIAMS, F.C.I.S.

ELECTRICITY SUPPLY BOARD

Lower Fitzwilliam Street, Dublin 2, Ireland.
Telephone 765831 and 771821. Telex Dublin 93727 ESB EI



The four regional finalists in the ESB/NIE CookElectric competition.

To the Minister for Energy and Communications

In accordance with the provisions of the Electricity Supply Acts 1927/1985, the Board presents its Annual Report and Accounts for the nine months ending 31st December, 1986. From now on the calendar year will be the accounting year for the ESB.

REVIEW OF PERIOD

In many ways 1986 was a watershed year for the ESB, a year that saw the Board achieve certain goals and lay the foundations for others — goals designed to bring about new efficiencies in organisation and new standards of service to the community in the years ahead. After so many years of price increases the announcement of price reductions twice in 1986, in April and December, was a welcome change. These

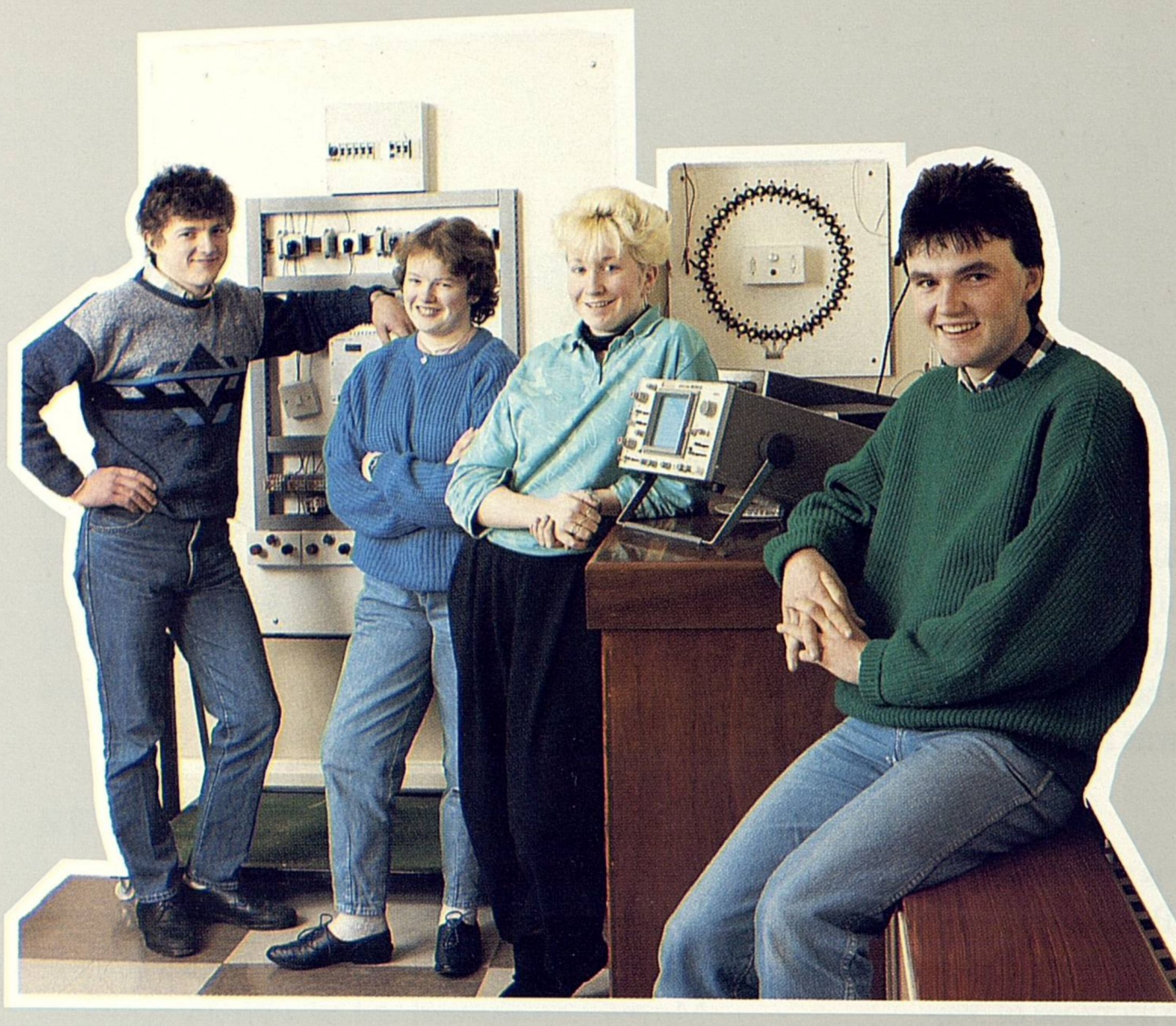


reductions pass on to industrial, commercial and domestic users the real drop in energy costs worldwide and the higher efficiencies being achieved throughout the ESB. The overall financial result of the nine months from April to December was a surplus of £6.369 million.

Increasing sales each year is vital to the financial health of the ESB and to the effort to keep prices stable. The growth target is a long-term annual average increase of 3%-4.5% in unit sales. This target has been met every year since 1983. In 1986 sales were up 4% on the corresponding nine months in 1985. Positive promotion and marketing contribute to this sales growth and so also does the continuing drive to improve the quality of our service to our customers.

Poolbeg Generating Station.





Apprentice electricians in the South West Distribution Region.

Convector heaters being assembled for distribution by charitable organisations during the snow blitz.



Progress on Moneypoint project continues to be satisfactory. The second unit was commissioned in 1986 and the final unit is on schedule for commissioning in 1987. The Board is particularly proud of the fact that the largest project to be undertaken in Ireland is nearing the finish on time and within budget. The country is now in its best plant position ever, having large electricity generation units capable of using different fuels at prices which are reasonably competitive with one another. Capital investment in plant construction will finish with the completion of Moneypoint and further new investment is perhaps as much as a decade away.

The Board is happy to record that the re-organisation which it started last year is now almost completed. Flexibility in organisation, in corporate strategy and in working practices will be necessary for the ESB to continue to adapt technological developments and become one of the world's leading electricity companies in its service to the community and in the effectiveness of its operations.

Since the ESB started foreign consultancy in the late seventies about £80 million income has been earned showing a net profit of £5 million. For the nine months in 1986, the turnover was £7.3 million and only break-even was achieved. The intense competition for engineering consultancy contracts worldwide has tightened margins to a level at which it is difficult to make profits. The Board's strategy to overcome this is to invest in expansion in new markets with new services. The ESB has the capacity to do this. The Board feels that it has a national responsibility to put its resources to the task of job and wealth creation as well as being the national supplier of electricity. The Board hopes that new legislation on company formation for external activities, too long delayed, will be enacted soon.

ESB shops continued the trading improvement reported last year and commercially acceptable profits are forecast from now on.

The ESB has completed a Strategic Plan to cover the period up to the year 2000, and it will be submitted to the Minister shortly. The Board would wish that the Plan be published so that the ESB can be judged against the targets it has set.

There was a bad lightning storm in June which caused widespread electricity failure. Our staff did outstanding work to have everything back to normal within a day. There were no other serious breakdowns.

There were no serious industrial relations problems during the year and the Industrial Council, under the joint Chairmanship of Mr. Maurice Cosgrave and Mr. Con Murphy, continued to be an important agency in solving disputes.

For a long time the Board has been convinced of the importance of a low-cost energy policy to competitiveness and economic expansion. The Board has regularly reported on the causes of dearer electricity in Ireland and its management and staff are working hard, with great success, to reduce costs which are within ESB control. The statistical section of this report contains all the indices against which performance can be measured. The Board is committed to an objective of achieving a level of electricity prices for all customers which will be about the same as in EEC countries but it cannot hope ever to reach that objective without Government acceptance of the need to reduce the costs which it imposes.

The Board believes that management, trade unions and staff accept the challenge to contribute wholeheartedly to our country by supplying a good electricity service as cheaply as possible. The Board sincerely thanks each member of the staff for her and his unique contribution to the ESB in 1986. The number of staff at year end was 11,763.

THE BOARD

The following were the members of the Board at 31st December 1986:-

Professor C. T. G. Dillon, M.E., C.Eng., F.I.E.I., F.I.E.E., F.I.Mech.E., CHAIRMAN (15)

S. Conerney (15)

W. Cremins (15)

Betty Dillon (6)

P. J. Kevans, Solicitor (12)

J. LaCumbre (12)

K. Lynch, Dip.Eng.(Mech.), M.I.E., C.Eng,. M.I.E.I. (12)

W. McCann, F.C.A. (3)

C. McCarthy, B.Comm., M.Econ.Sc. (12)

P. J. Moriarty, F.C.I.S., F.Mgt.I., F.I.P.M., F.I.E.I., CHIEF EXECUTIVE (12)

N. S. O'Hara, B.E., M.I.E., C.Eng., M.I.E.I. (15)

The Board welcomes the appointment of Mr. William McCann to the Board in November 1986.

During the nine months to 31st December 1986 there were 15 separate meetings of the Board. The numbers in brackets opposite each name above are the number of meetings attended by each Board Member.

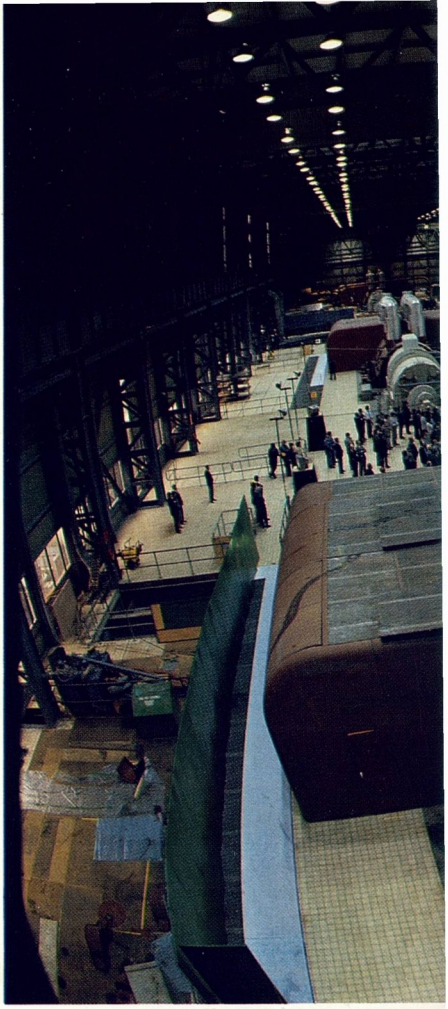
This report was approved by the Board at its meeting on 31st March, 1987 for submission to the Minister for Energy and Communications.

Signed:

Charles T. G. Dillon, *Chairman*

P. J. Moriarty, *Chief Executive*

J. F. Williams, *Secretary*



The official opening on December 1st 1986 of Moneypoint Generating Station by an Tanaiste and Minister for Energy, Mr. Dick Spring, T.D.



Dublin City Marathon runners passing ESB Head Office.



Birds eye evening view of O'Connell Street, Dublin.



ELECTRICITY SUPPLY BOARD
BORD SOLÁTHAIR AN LEICTREACHAIS

Accounts and Schedules for the nine months ended 31st December 1986

Contents

ACCOUNTS

1. Profit and Loss Account
2. Balance Sheet

SCHEDULES

A. Electricity Income and Expenditure Account
B. Appliance and Contracts Income and Expenditure Account
C. Consultancy Income and Expenditure Account
D. Statement of Source and Application of Funds
E. Statement of Capital Assets
F. Statement of Current Assets and Current Liabilities
G. Statement of Sinking Funds for Borrowings
H. Statement of Borrowings
I. Statement of Interest
J. Statement of Capital Reserves
K. Fisheries - Commercial Operations
K(i) Fisheries - Conservation Operations
L. Value Added Statement
M. Notes on Accounts and Schedules

N. Current Cost Profit and Loss Account
O. Current Cost Balance Sheet
P. Notes on Current Cost Accounts

Auditors' Report

Profit and Loss Account

Account No. 1

1985/1986 (12 Months) £000's		£000's		1986 (9 Months) £000's
	Operations			
70,057	Electricity Income and Expenditure Account (Schedule A)			61,109
(1,093)	Appliance and Contracts Income and Expenditure Account (Schedule B)			(502)
28	Consultancy Income and Expenditure Account (Schedule C)			9
179	Fisheries - Commercial Operations (Schedule K)			NIL
69,171				60,616
(727)	Expenses on New Borrowings			(54)
68,444	Operations Surplus			60,562
(76,110)	Amortisation Charge (Schedule A)			(54,193)
	Non-Operating Items			
13,808	Non-Repayable Supply Contributions (Schedule J)	10,852		
2,512	Credits on Disposal of Assets and on ESB Stock Cancellations (Schedules J and G)	2,445		
11,031	Interest on Sinking Fund Investments (Schedule G)	6,680		
			19,977	
(27,351)	Transferred to Capital Reserves and Sinking Fund		(19,977)	–
(7,666)	Surplus/(Deficit) for Period			6,369
(64,449)	Deficit brought forward from previous year			(72,115)
£(72,115)	Deficit carried forward to next year			£(65,746)

Notes: Adjustments in year-end parities of foreign borrowings have been reflected in Repaid Capital Reserve (Schedule J).

: A consequential loss claim against the Board's insurers which arose in 1985/1986 has not been settled – no amount has been included in the Financial Statements.

Balance Sheet

Account No. 2

31st March, 1986				31st December, 1986
		Assets Employed:		
£000's	*Reference*		£000's	£000's
1,469,423	Schedule E	**Net Investment in Capital Assets** including work-in-progress		1,519,364
319,552	Schedule F	**Current Assets**	317,871	
		Less:		
163,046	Schedule F	**Current Liabilities**	153,820	
156,506		**Net Current Assets**		164,051
60,570	Schedule G	**Sinking Fund Investments,** at cost (including interest accrued £2,372)		60,255
£1,686,499				£1,743,670
		Financed as follows:		
1,284,819	Schedule H	**Borrowings**		1,302,766
		Reserves		
413,225	Schedule J	Capital	446,395	
60,570	Schedule G	Sinking funds for repayment of borrowings	60,255	
(72,115)	Account No. 1	Profit and Loss Account balance (deficit)	(65,746)	
401,680				440,904
£1,686,499				£1,743,670

Note: At 31st December, 1986 contractual commitments amounted to aproximately £24m. (at 31st March, 1986 - £43m.). In addition, work approved by the Board but not yet contracted for amounted to approximately £76m. (at 31st March, 1986 - £117m.).

Signed: Charles T. G. Dillon *Chairman*

Signed: P. J. Moriarty *Chief Executive*

D. J. Moran *Director, Finance*

31st March, 1987

Electricity Income and Expenditure Account

Schedule A

1985/1986 (12 Months) £000's		£000's	£000's	£000's	£000's	1986 (9 Months) £000's
757,172	**Income** – Electricity Sales	550,620				
2,311	– Miscellaneous	1,834				
759,483						552,454
	Expenditure:	**Generation**	**Transmission**	**Distribution**	**Total**	
299,782	Fuel (including purchased electricity)	164,629			164,629	
161,998	Operation, maintenance and local charges	58,888	6,393	69,395	134,676	
56,719	General charges	18,203	4,341	25,242	47,786	
3,533	Stations now decommissioned	1,442			1,442	
52,190	Depreciation	25,342	5,335	12,607	43,284	
574,222		268,504	16,069	107,244	391,817	
	Unapportioned Costs:					
23,250	Rates Levy				18,000	
91,954	Interest				81,528	
689,426						491,345
70,057						61,109
76,110	Amortisation Charge (Schedule M - Note 9)					54,193
£(6,053)	Surplus/(Deficit)					£6,916

Notes: – All figures in £000's

Fuel includes: Excise Duty on Mineral Hydrocarbon Oil £16,424 (Previous 12 months £11,206).

Charges include: Fisheries Conservation Cost £605(£809), Local Authority Rates £2,205(£2,861), Bad Debts £1,085(£1,345), Audit Fee £82(£80), Board Members' Remuneration including full-time Chairman £39(£51).

Appliance and Contracts Income and Expenditure Account

Schedule B

	Total		Appliance Sales		Appliance Repairs		Installations Contracts	
	1985/1986 (12 mths)	1986 (9 mths)	1985/1986 (12 mths)	1986 (9 mths)	1985/1986 (12 mths)	1986 (9 mths)	1985/1986 (12 mths)	1986 (9 mths)
	£000's	£000's	£000's	£000's	£000's	£000's	£000's	£000's
Income	17,818	16,462	12,823	12,380	1,617	1,399	3,378	2,683
Direct Costs	14,706	13,250	10,448	9,915	1,584	1,320	2,674	2,015
Gross Profit	3,112	3,212	2,375	2,465	33	79	704	668
Overheads:								
Payroll costs	2,455	1,950	1,460	1,232	617	478	378	240
Publicity	200	219	200	219	–	–	–	–
Premises costs	890	786	502	488	310	243	78	55
Sundry expenses	254	433	187	144	39	152	28	137
General charges and interest, as apportioned	1,298	1,005	549	392	460	351	289	262
	5,097	4,393	2,898	2,475	1,426	1,224	773	694
Less: transfer to Electricity Income and Expenditure Account (See Schedule M – Note 12)	892	679	–	–	814	620	78	59
	4,205	3,714	2,898	2,475	612	604	695	635
Surplus/(Deficit) transferred to Profit and Loss Account	£(1,093)	£(502)	£(523)	£(10)	£(579)	£(525)	£9	£33

Consultancy Income and Expenditure Account

Schedule C

1985/1986 (12 Months) £000's		£000's	1986 (9 Months) £000's
12,776	**Income**		7,308
	Expenditure:		
10,530	Direct Costs	5,628	
	Overheads:		
940	Directly allocated	741	
1,278	General charges and interest, as apportioned	930	
12,748			7,299
£28	Surplus transferred to Profit and Loss Account		£9

Statement of Source and Application of Funds

Schedule D

1985/1986 (12 Months) £000's	Reference			1986 (9 Months) £000's
		Source:		
68,444	Account No. 1	Operations before Amortisation Charge		60,562
2,431	Schedule I	Provision towards premium on Stock Redemption		1,432
57,650	Schedule E	Depreciation		47,673
2,512	Account No. 1	Credits on disposal of assets and on Stock Cancellations		2,445
11,031	Account No. 1	Interest on Sinking Fund Investments		6,680
16,513	Schedule G	Decrease in Sinking Fund		315
158,581				119,107
13,808	Account No. 1	Non-Repayable Supply Contributions		10,852
204,970	Schedule H	Borrowings		71,861
£377,359				£201,820
		Application:		
171,744	Schedule E	Capital expenditure		99,611
123,163	Schedule H	Redemption of Borrowings		89,139
3,494	Schedule G	Payment of premium on Premium Stock		5,525
	Schedule F	Net Movement in Current Assets/Current Liabilities:		
		– Cash/Temporary Investments/ESB Stocks	(8,487)	
		– Debtors/Creditors	(3,603)	
		– Inventories	19,635	
78,958				7,545
£377,359				£201,820

Statement of Capital Assets

(Including Analysis of Depreciation)

Schedule E

	Total Gross Assets at 31st March 1986	Additions during period	Retirements during period	Total Gross Assets at 31st December 1986	Less Accumulated Depreciation	**Total Net Assets at 31st December 1986**
	£000's	£000's	£000's	£000's	£000's	**£000's**
ASSETS						
Generation	818,631	161,514	537	979,608	243,496	**736,112**
Transmission	216,861	55,996	80	272,777	55,758	**217,019**
Distribution	420,841	30,090	2,373	448,558	153,526	**295,032**
General Buildings, Transport and Working Equipment	98,932	7,570	1,900	104,602	28,713	**75,889**
Fisheries	1,177	–	–	1,177	233	**944**
	1,556,442	255,170	4,890	1,806,722	481,726	**1,324,996**
Work-in-Progress, including payments on account						**194,368**
Net Investment in Capital Assets						**£1,519,364**

Work carried out in the period amounted to £99.611m. (Previous 12 months £171.744m.).

ACCUMULATED DEPRECIATION

	£000's	£000's
Total as at 31st March, 1986		436,946
Movements in period:		
Depreciation of assets - Plant and Buildings	43,316	
- Tools, Vehicles etc.	4,357	
	47,673	
Assets Retired	(4,890)	42,783
		479,729
Transfer from Asset Renewal Reserve (Schedule J)		1,997
Total as at 31st December, 1986		£481,726

Statement of Current Assets and Current Liabilities

Schedule F

31st March, 1986 £000's		Nominal Value £000's	Nominal Value £000's	£000's	£000's	31st December, 1986 £000's
	Current Assets					
17,598	**Bank Deposits (Net) and Cash**					32,548
	Temporary Investments at cost:					
		(31st March, 1986)				
23,499	– Government Stocks	25,892	–		–	
1,701	– Euro Bonds	1,808	1,727		1,766	
25,200						1,766
1,684	**ESB Stocks** – to support market	1,623	1,764			1,681
	Accounts Receivable:					
	Electricity: billed			51,301		
147,335	: unbilled			76,917	128,218	
17,235	Appliance and Contracts (including £18.9m. Hire Purchase, maximum term 5 years)				20,188	
	Others: VAT Refund Due			2,914		
	: Sundry (completed) Repayable Work			16,992		
	: Miscellaneous			17,216		
34,128					37,122	
198,698						185,528
	Inventories:					
37,299	Fuel				55,422	
33,255	Plant/Network Stocks and Miscellaneous Spares and Sundries				34,512	
2,854	Appliances				3,109	
73,408						93,043
2,964	**Repayable Work-in-Progress at cost**					3,305
£319,552						£317,871
	Current Liabilities					
66,237	**Accounts Payable**					62,141
3,006	**Progress Payments on Repayable Work-in-Progress**					2,929
20,016	**Temporary Borrowings and Borrowings for Hire Purchase financing**					17,009
6,368	**Supply Contributions and Deposits**					6,559
30,447	**Accrued Charges and Provisions**					45,718
36,972	**Accrued Interest on Borrowings**					19,464
£163,046						£153,820

Statement of Sinking Funds for Borrowings

Schedule G

1985/1986 (12 Months) £000's		£000's	1986 (9 Months) £000's
73,237	Opening Balance – Investments	57,169	
3,846	– Interest Accrued	3,401	
77,083			60,570
	Additions:		
76,110	Amortisation charge in period (Account No. 1)	54,193	
2,431	Provision for premium on ESB Stocks (Schedule I)	1,432	
72	Credits on cancellation of ESB Stocks	–	
11,031	Interest for period (including interest accrued)	6,680	
89,644			62,305
166,727			122,875
	Utilisation:		
	Redemption of borrowings viz:–		
	– Minister for Finance	949	
	– ESB Stocks (including credits on cancellation)	18,417	
	– Other Borrowings	37,729	
(102,663)	Reflected in Repaid Capital Reserve (Schedule J)		(57,095)
(3,494)	Premium Paid on Stock Redemption		(5,525)
	Closing Balance: (as per Balance Sheet)		

		Market £000's	Cost £000's		
	Investments – Government Stocks	48,780	43,755		
	– Euro Bonds	18,678	14,128		
57,169				57,883	
3,401	Interest accrued			2,372	
£60,570					£60,255

Note: Redemption of individual Borrowings is shown in detail in the Appendices.

Statement of Borrowings

Schedule H

	Balance Outstanding 31st March, 1986 £000's	Borrowed during period £000's	Redeemed during period £000's	Adjustment for currency changes £000's	**Balance Outstanding 31st December, 1986 £000's**
Irish Pound Borrowings:					
Fixed Rate Facilities	161,317	–	21,015	–	**140,302**
Floating Rate Facilities	255,675	14,700	11,375	–	**259,000**
	416,992	14,700	32,390	–	**399,302**
Foreign Currency Borrowings:					
Project Finance	500,030	57,161	25,928	25,082	**556,345**
Fixed Rate Facilities	223,591	–	15,476	19,815	**227,930**
Floating Rate Facilities	144,206	–	15,345	(9,672)	**119,189**
TOTAL – FOREIGN CURRENCY BORROWINGS	867,827	57,161	56,749	35,225	**903,464**
TOTAL – IRISH POUND BORROWINGS	416,992	14,700	32,390	–	**399,302**
TOTAL – ALL BORROWINGS	£1,284,819	£71,861	£89,139	£35,225	**£1,302,766**

Note: Individual borrowing details are shown in the Appendices.

Statement of Borrowings

Schedule H (Continued)

Currency and Repayment Profile of Borrowings

	Repayable Within 1 Year £000's	Repayable Within 2 to 5 Years £000's	Repayable Within 6 to 10 Years £000's	Repayable After 10 Years £000's	Total £000's	Currency as % of Total Borrowings %
Irish Pounds	7,629	238,346	117,727	35,600	399,302	30
European						
Sterling	2,456	4,976	25,051	17,081	49,564	4
Deutsche Marks	21,359	122,181	43,953	6,284	193,777	15
Swiss Francs	12,049	59,257	98,914	5,946	176,166	13
Belgian Francs	2,183	4,366	–	–	6,549	1
French Francs	1,960	7,515	10,065	13,736	33,276	3
Dutch Guilders	3,281	37,943	8,882	16,683	66,789	5
Luxembourg Francs	–	6,289	25,259	17,365	48,913	4
ECU's	–	3,372	9,852	10,554	23,778	2
Italian Lira	–	474	1,558	2,284	4,316	–
Others						
U.S. Dollars	36,575	78,261	44,326	18,753	177,915	14
Canadian Dollars	5,195	23,376	–	–	28,571	2
Japanese Yen	7,658	35,022	29,835	21,060	93,575	7
Miscellaneous	29	139	107	–	275	–
	£100,374	£621,517	£415,529	£165,346	£1,302,766	
Repayment Profile	8%	48%	32%	12%		100%

See Note No. 9 – Amortisation of Borrowings

Statement of Interest

Schedule I

1985/1986 (12 Months) £000's		£000's	£000's	1986 (9 Months) £000's
	Interest on:			
	Advances from Minister for Finance		1,164	
	Borrowings in Irish pounds	46,736		
	Add: Provision for funding of premium on redemption of ESB Stocks	1,432		
			48,168	
	Borrowings in other currencies		50,961	
			100,293	
	Less: Interest receivable		5,211	
£125,629				**£95,082**
	Allocated as follows:			
	Interest:			
	Income and Expenditure Accounts:			
	– Electricity		81,528	
	– Appliance and Contracts		247	
	– Consultancy		309	
	Fisheries		100	
	Capital Works		12,898	
£125,629				**£95,082**

Statement of Capital Reserves

Schedule J

	£000's	£000's	£000's
Non-Repayable Supply Contributions:			
Contributions from State under Electricity (Supply) Acts towards capital cost of supplying rural areas – as at 31st March, 1986		27,890	
Other contributions – as at 31st March, 1986	113,317		
Additions in period	10,852		
		124,169	
			152,059
Repaid Capital Reserve:			
Amortisation of Borrowings, less write-off of intangible assets, adjustment for changes in currency parities and discounts on stock issues – as at 31st March, 1986		257,350	
Movements in period:			
Amortisation of Borrowings (Schedule G)	57,095		
Adjustment for changes in currency parities (Schedule M – Note 8)	(35,225)		
		21,870	
			279,220
***Asset Renewal Reserve:**			
Balance as at 31st March, 1986		14,668	
Credits arising on disposal of assets retired (Account No. 1)		2,445	
Less amount allocated to depreciation fund (Schedule E)		(1,997)	
			15,116
Total as at 31st December, 1986 (as per Balance Sheet)			**£446,395**

*The policy on Asset Renewal Reserve is explained in Schedule M – Note 3.

Fisheries – Commercial Operations

Schedule K

1985/1986 (12 Months) £000's		£000's	1986 (9 Months) £000's
1,014	**Income**		942
	Expenditure:		
701	Direct Costs	718	
	Overheads and General Charges:		
88	Payroll, expenses and charges	92	
17	Depreciation	32	
29	Interest on Borrowings	100	
835			942
£179	Surplus/(Deficit) transferred to Profit and Loss Account		NIL

Notes: 1. From 1st April 1986, Commerical operations include hatcheries (previously under Conservation – Schedule K(i).).

2. Investment in Fisheries Assets (incorporated in the Board's General Assets) at 31st December, 1986 includes the following:

– Hatcheries/Fish Farms etc.	£0.9m.
– Joint Venture Investment	£0.5m.
– Inventories	£0.4m.
	£1.8m.

Fisheries – Conservation Operations

Schedule K(i)

1985/1986 (12 Months) £000's		£000's	1986 (9 Months) £000's
698	Direct Costs		605
	Overheads and General Charges:		
64	Payroll, expenses and charges	22	
13	Depreciation	–	
50	Interest on Borrowings	–	22
825			627
	Less:		
16	Letting of fishing rights and miscellaneous income		22
£809	Net Cost for Period included in Electricity Income and Expenditure Account		£605

See Note on Schedule K re hatchery operations

Value Added Statement

Schedule L

1985/1986 (12 Months) £000's		£000's	1986 (9 Months) £000's
	Sources of Income:		
757,172	Electricity Sales (Schedule A)	550,620	
17,818	Appliance and Contracts Trading (Schedule B)	16,462	
12,776	Consultancy (Schedule C)	7,308	
1,014	Fisheries (Schedule K)	942	
2,311	Miscellaneous	1,834	
791,091			**577,166**
	Less Costs of:		
299,782	Fuel (including Excise Duty on Mineral Hydrocarbon Oil £16,424)	164,629	
110,615	Materials and Services (including Rates Levy £18,000)	90,328	
57,650	Depreciation of Assets	47,673	
468,047			**302,630**
£323,044	**Value Added**		**£274,536**
	Distribution of Value Added:		
161,916	Employees – Payroll (Inclusive of deductions for PAYE/PRSI etc.)		**131,790**
	Lenders		
92,684	– Interest	82,184	
76,110	– Amortisation of Borrowings	54,193	
168,794			**136,377**
(7,666)	Reduction/(Increase) in Deficit brought forward		**6,369**
£323,044			**£274,536**

Basis of Accounting:

1. The Financial Statements (Accounts/Schedules) are prepared in accordance with generally accepted accounting principles; however, an amortisation charge is made which is calculated to spread recovery from Income of amounts borrowed together with the effect of any currency movements on such borrowings (See Note 8). This treatment is considered to be appropriate to a public utility and is consistent with the requirements of the Electricity (Supply) Acts 1927–1985.
The Financial Statements are expressed in Irish pounds (£s).

Principal Accounting Policies:

2. **Capital Assets:**
Capital Assets are valued at cost. Cost includes prime cost, overheads and interest costs during construction. Assets include land (£24.3m) most of which is held freehold.
Leased assets are not capitalised and payments under such leases are charged to the Electricity Income and Expenditure Account: at year end, the capital element of outstanding finance leases amounted to £25m.

3. **Depreciation of Capital Assets:**
Depreciation is designed to recover historical cost over allotted lifespans. Methods used are appropriate to the nature of the Board's business and to the character and extent of its capital assets.
Assets are grouped and allotted lifespans in line with international practice. Major asset classifications and their allotted lifespans are:–

: Generation Plant and Thermal Station Structures (other than Moneypoint Station)	20 years
: Distribution Plant and Structures	25 years
: Transmission Plant and Structures and Moneypoint Station Plant	30 years
: General Buildings, Hydro Stations and Moneypoint Station Structures	50 years

Depreciation is provided:
: On the straight-line method for Transmission, Distribution and General Assets.
: On a projected plant usage basis for Generating Units.
: On all assets from date of commissioning.
Assets when retired from service are charged against Accumulated Depreciation.
Asset Renewal Reserve (Schedule J): The proceeds of disposal and stores value of assets retired are credited to Asset Renewal Reserve; shortfalls arising in the depreciation fund are recovered therefrom.
Depreciation continues to be provided on decommissioned stations which, together with other costs pertaining thereto, are disclosed separately.

4. **Inventories:**
Stocks are valued at the lower of average cost and net realisable value.
Spares held to provide for major plant breakdowns are capitalised as part of generating plant and depreciated accordingly.

5. **Repayable Work-in-Progress:**
Installations Contracts are valued at direct cost together with appropriate overheads; sundry works at direct cost.

6. **Accounts Receivable:**
The figure for Accounts Receivable in the Statement of Current Assets and Current Liabilities is net of a provision for doubtful debts, considered adequate in relation to the size and nature of the business. Bad debts are written off as they arise.

7. **Capital Borrowings:**
The Statement of Borrowings includes borrowings initially contracted for a period in excess of twelve months, irrespective of phased repayment arrangements, and of the lapsed portion of repayment period. Discounts on Borrowings have been charged against the Repaid Capital Reserve. Other borrowing costs are charged against Profit and Loss Account.

8. **Borrowings in Foreign Currencies:**
Irish Pound Equivalent is at exchange rates ruling at year end. Changes are reflected in the Capital Reserve.

9. **Amortisation of Borrowings:**
This charge is made to reflect certain provisions of Section 21 (2) of the Electricity (Supply) Act, 1927.

It is determined as follows:

: The charge for ESB stock issues is in accordance with contractual commitments.

: The charge for other borrowings is calculated at 5% of their Irish Pound value as at the previous year-end.

: The charge to cover cumulative effect of exchange rates adjustments is calculated at 5% of the aggregate adjustment for changes in currency parities over the previous five years.

The sinking fund provision towards the premium element payable on redemption of ESB Premium Stock is included in the charge for interest.

In the accounts to 31st December, 1986, proportional amortisation has been charged for 9 months.

Sinking Fund Investments are stated at cost.

10. Non-Repayable Supply Contributions:
Non-Repayable Supply Contributions are credited to Capital Reserves (Schedule J) via the Profit and Loss Account (Account No. 1).

11. Hire Purchase Transactions:
Profit on Hire Purchase sales is taken in the year of sale. Credit for interest is taken on a reducing balance basis over the Hire Purchase term.
Hire Purchase financing operations are reflected in the Appliance Sales Activity.

12. Apportionments:

(a) Capital Expenditure:
Capital Expenditure bears interest on the average value of (1) Work-in-Progress (2) stocks held and (3) advances made to suppliers in respect of capital works at the rates appropriate to the financing of individual projects, and a proportion of general overhead expenses calculated at a percentage rate on the prime cost of work paid for during the year.

(b) Appliance and Contracts Income and Expenditure Account:
This account bears appropriate proportions of general overhead expenses and interest; premises costs include a charge for depreciation.
Overhead elements of Appliance and Installations Contracts which are appropriate to the Electricity Income and Expenditure Account have been allocated directly as they occur. An amount, calculated at 75p per customer, is transferred to the latter account, in recognition of the total safety and social role of Appliance Repairs and Installations Contracts.

(c) Consultancy and Fisheries bear appropriate proportions of general overhead expenses and interest.

13. Taxation:
The Board is liable for Corporation Tax at the reduced rate applicable to manufacturing companies. Because of large continuing capital expenditure, liability to tax will not arise in the foreseeable future and a deferred tax provision is not deemed necessary (unutilised capital allowances/losses forward at 31st December, 1986 are estimated at £938m). The potential tax liability deferred as a consequence of accelerated capital allowances is estimated at £28m. (31st March, 1986 – £23m)

14. Exceptional Expenditure:
Essential maintenance and repairs are charged to the Electricity Income and Expenditure Account in the year in which the liability arises, on an estimated basis if necessary. Costs incurred to improve system efficiency are charged to the Electricity Income and Expenditure Account over the number of years corresponding to the benefits secured: similar treatment has been applied to Moneypoint Generating Station pre-commissioning costs.

15. Superannuation Scheme:
The Board contributes towards a pension scheme for staff under the provisions of the Electricity Supply Board (Superannuation) Act 1942 as amended: the scheme is subject to regular actuarial review. The Board's liability is confined to such contributions.

16. Comparative Figures:
Where appropriate, previous year's comparative figures are regrouped.

17. Accounting Year:
Income and Expenditure are aligned on a 52 or 53 week year as appropriate. The accounting date has been changed from 31st March to 31st December and the period to 31st December, 1986 covers 39 weeks (1985/1986 – 52 weeks).

Current Cost Profit and Loss Account

Schedule N

1985/1986 (12 Months) £000's		£000's	1986 (9 Months) £000's
(7,666)	**Surplus/(Deficit) as per Profit and Loss Account,** after Interest and Amortisation		**6,369**
	Current Cost Operating Adjustments:		
(48,214)	Depreciation	(36,169)	
11,755	Cost of Sales	4,527	
(2,171)	Monetary Working Capital	(804)	
(38,630)			**(32,446)**
(46,296)			**(26,077)**
22,405	Gearing Adjustment		**18,170**
£(23,891)	**Current Cost Surplus/(Deficit)**		**£(7,907)**

Current Cost Balance Sheet

Schedule O

31st March, 1986 £000's		31st December, 1986 £000's	£000's
	Assets Employed:		
2,027,183	**Fixed Assets**	2,088,857	
150,125	**Net Current Assets**	163,178	
60,570	**Sinking Fund Investments**	60,255	
£2,237,878			**£2,312,290**
	Financed as follows:		
1,284,819	**Borrowings**	1,302,766	
	Reserves (See below):		
696,635	Current Cost Reserve	728,152	
256,424	Other Reserves	281,372	
953,059		1,009,524	
£2,237,878			**£2,312,290**

Current Cost Reserve

	£000's	£000's
Opening Balance		**696,635**
Balance Sheet Items – Revaluations:		
Cumulative to this period – Fixed Assets (incl. W.I.P.) – Note 2	569,493	
– Inventories – Note 3	(873)	
	568,620	
Less cumulative to last year – included in Opening Balance	(551,379)	**17,241**
Profit and Loss Account Items:		
Cost of Sales Adjustment	(4,527)	
Monetary Working Capital Adjustment	804	
Depreciation Adjustment	36,169	
	32,446	
Less: Gearing Adjustment	(18,170)	**14,276**
		£728,152

Other Reserves

	£000's	£000's
Total Reserves per Historical Balance Sheet		**440,904**
Net current cost adjustment to Profit and Loss Account – Cumulative to Last Year	(145,256)	
– This Period's Items	(14,276)	**(159,532)**
Other Reserves per Current Cost Balance Sheet		**£281,372**

Signed: Charles T. G. Dillon *Chairman*

Signed: P. J. Moriarty *Chief Executive*

D. J. Moran *Director, Finance*

31st March, 1987

NOTES ON AND FORMING PART OF THE CURRENT COST ACCOUNTS

Schedule P

1. Introduction:

The principles and method used in the calculation of the Current Cost Accounts (Schedules N. & O.) are in compliance with Statement of Standard Accounting Practice No. 16. Apart from the particular features covered in these notes the accounting policies, bases and methods are the same as in the Historical Cost Accounts.

The current cost system, while not a system of accounting for general inflation, takes account of price changes specific to a business in both Profit and Loss Account and Balance Sheet. It aims to determine, by means of certain adjustments to the historical cost results, the current cost profit or loss after allowing for the impact of price changes on the funds needed to maintain the productive assets of the business.

2. Fixed Assets:

Valuation of assets is based on indexation calculated by reference to the Transportable Goods Index issued by the Central Statistics Office as at November 1986 except for non specialised buildings which have been valued by a qualified internal valuer.

Fixed Assets and Work-in-Progress

31st December, 1986				31st March, 1986
Fixed Assets:	**Gross**	**Depreciation**	**Net**	**Net**
	£000's	**£000's**	**£000's**	**£000's**
Historical Value	1,806,722	481,726	1,324,996	1,119,496
Revaluation Change	1,865,521	1,313,585	551,936	531,084
Current Cost Value	£3,672,243	£1,795,311	£1,876,932	£1,650,580
Work-in-Progress:				
Historical Value			194,368	349,927
Revaluation Change			17,557	26,676
Current Cost Value			£211,925	£376,603
Current Cost Value of Fixed Assets and Work-in-Progress			£2,088,857	£2,027,183

3. Net Current Assets:

31st December, 1986		31st March, 1986
	£000's	**£000's**
Historical Value	164,051	156,506
Revaluation Change	(873)	(6,381)
Current Cost Value	£163,178	£150,125

4. Depreciation:

Total depreciation charged in the Current Cost Profit and Loss Account represents the current cost of the proportion of fixed assets consumed during the period. The depreciation adjustment of £36.169m.(£48.214m. in the 12 month period to 31st March, 1986) is the difference between the depreciation charge in the Historical Cost and Current Cost Accounts.

5. Stocks and Cost of Sales Adjustment:

Stocks are stated at value to the business at Balance Sheet date. The Cost of Sales adjustment is the difference between the replacement cost (at date of consumption) and the corresponding historical cost of stocks consumed. For fuel, the adjustment is the average replacement cost; for other stocks the adjustment uses an internal index based on actual input data.

6. Monetary Working Capital Adjustment:

The Monetary Working Capital Adjustment represents the additional monetary working capital required by a business as a consequence of price changes during the period in order to maintain its operations. Computation of the adjustment uses internal indices developed from the Board's actual recorded cost data.

7. Gearing Adjustment:

A proportion of the net operating assets of a business is financed by borrowings. The gearing adjustment dilutes the operating adjustments to reflect the effect of these borrowed funds. A gearing adjustment has been included as being reasonable in the overall context of the Board's financing.

Auditors' Report

As Auditors appointed by the Minister for Energy, with the consent of the Minister for Finance, we have audited the Profit and Loss Account, Balance Sheet and attached Schedules A to M of the Electricity Supply Board, in accordance with approved auditing standards, and have obtained all the information and explanations which we considered necessary.

In our opinion, the Profit and Loss Account and Balance Sheet, together with the Statement of Source and Application of Funds (Schedule D), which have been prepared under the Historical Cost Convention, give, when read in conjunction with the relevant schedules and notes appearing thereon and the basis of accounting and principal accounting policies, a true and fair view of the results of the Board for the period ended 31st December, 1986 and of the state of the Board's affairs as at that date.

In our opinion, the Board has kept proper books with which the above mentioned financial statements are in agreement.

In our opinion, the supplementary current cost statement for the period ended 31st December, 1986, together with the notes thereon, as set out on Schedules N to P, have been properly prepared in accordance with the policies and methods described in the notes, to give the information required by Statement of Standard Accounting Practice No. 16.

1 Stokes Place,
St. Stephen's Green,
DUBLIN 2.
31st March, 1987

Stokes Kennedy Crowley & Co.,
Chartered Accountants



Two life-lines connect Dursey Island (off the Beara Peninsula) with the mainland, the cable car (left) and the 10kV overhead lines (right). Twenty people live on the island.

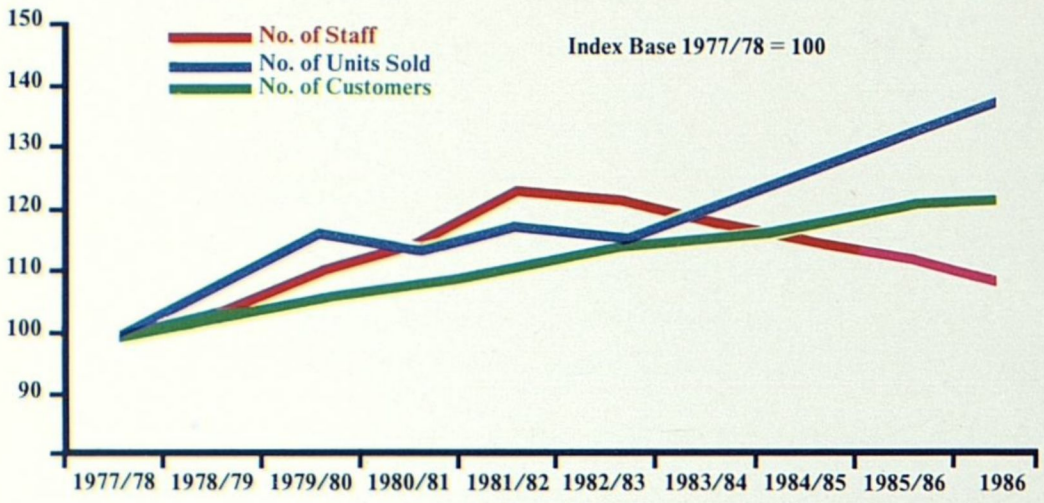
STATISTICS AND INDICATORS

This section shows the trend in key indicators and statistics for the Board. This year the Board's accounting period has been changed to the calendar year from the previous practice of accounting and reporting on a year which started on the 1st of April and finished on 31st March. In this transition year, accounts are being presented for the nine months of 1986 starting on 1st April and finishing on 31st December. To achieve valid comparisions the figures have been annualised in a number of charts.

Contents

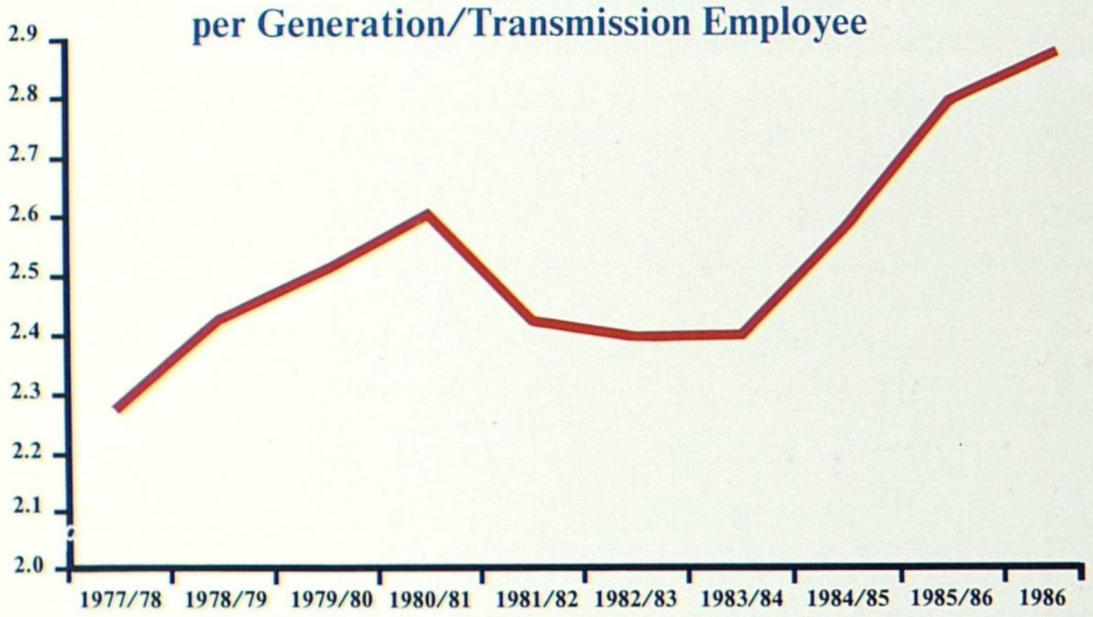
Page	
	Staff
40	Indicators
	Finance
41	Indicators
43	Summary of Electricity and Trading Figures
44	Statistics and Key Ratios
45	Statement of Borrowings
	Marketing
47	Indicators
47	Analysis of Units Sold
48	Growth of ESB 1930/86
48	Electricity Sales by Sector
	Distribution
49	Indicators
50	Distribution System at 31st December, 1986
51	Distribution System Trends
51	Frequency Range (Hertz)
	Transmission
52	Indicators
52	Plant Availability
53	Transmission System at 31st December, 1986
54	Transmission Capacity Trends
	Operations
55	Indicators
58	Statement of Generation Costs
59	Installed Capacity
59	Plant Forced Outage Rate
59	Thermal Efficiency
60	Station Staff Numbers per MW
60	Age of Generating Plant
61	Generation Statistics for the Period
62	Particulars and Performance of Generating Plant
63	Peak Load/System Demand Trends
64	Distribution and Generation Regions and Managers

Staff Productivity



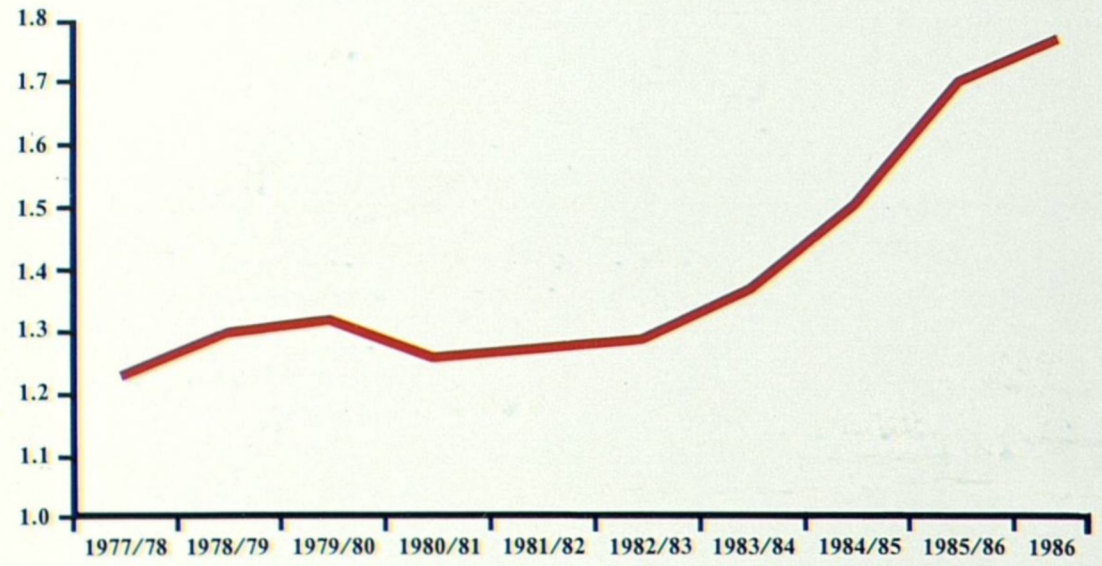
Graph 1

Million kWh sold per Generation/Transmission Employee



Graph 2

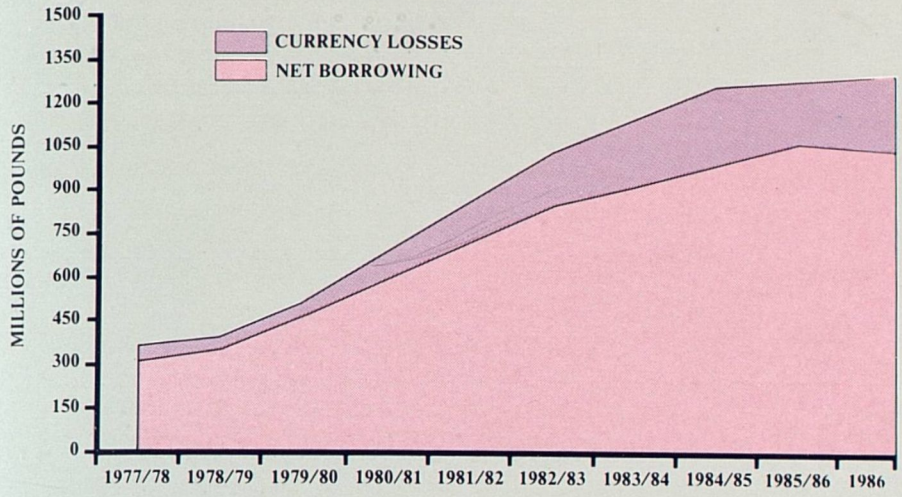
Million kWh Sold per Distribution/Marketing Employee



Graph 3

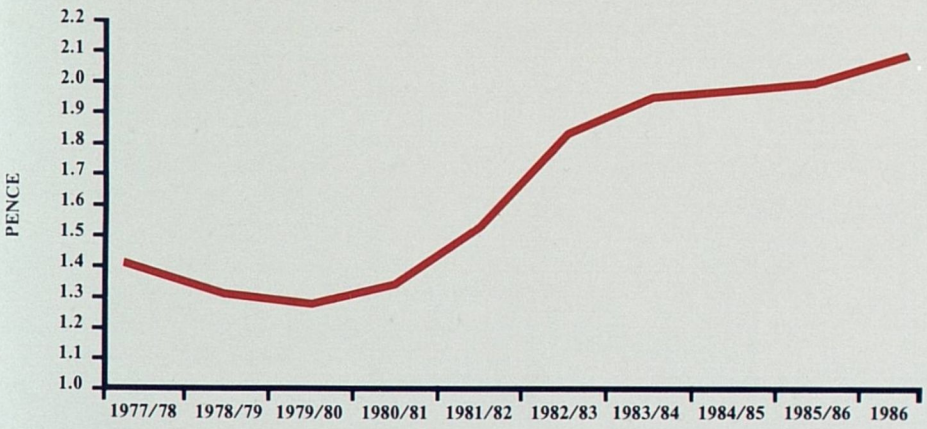
Graphs 1, 2, and 3 show a ten year trend of improvement in staff productivity measured against customer numbers and units of electricity sold on an annualised basis.

Borrowings Outstanding and Impact of Currency Movements



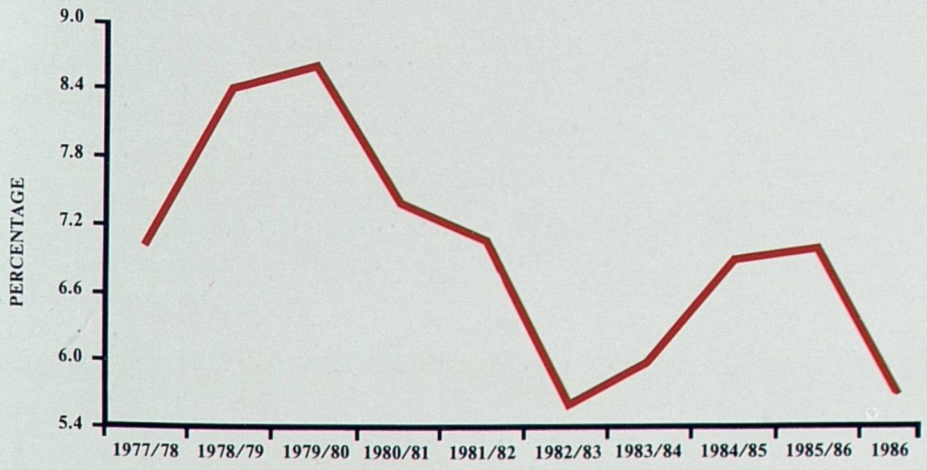
Graph 4

Debt Servicing + Rates Levy Per Unit Sold 1986 Prices



Graph 5

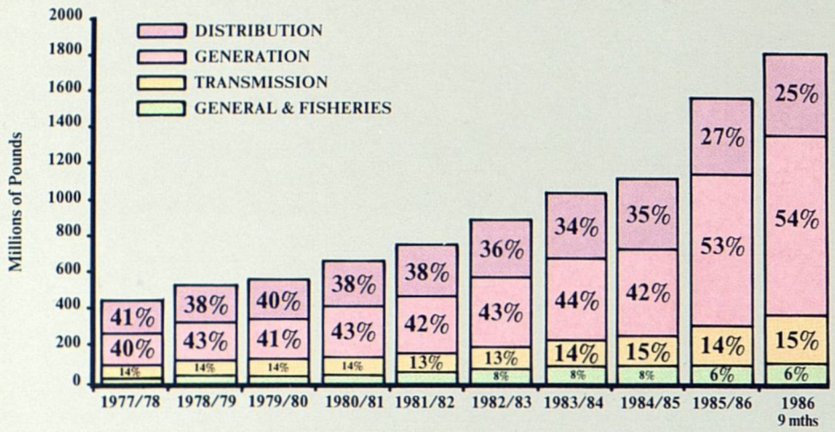
Debtors as % of Annual Billing



Graph 6

Graph 4 shows the impact of currency movements on total debt. The increase in debt servicing cost per unit, Graph 5, is due to the increasing interest charges and distortion caused by the 9 month year. The improvement in debtors, Graph 6, is consistent with the improving trend over the decade, however there is inevitable distortion caused by the change in year end.

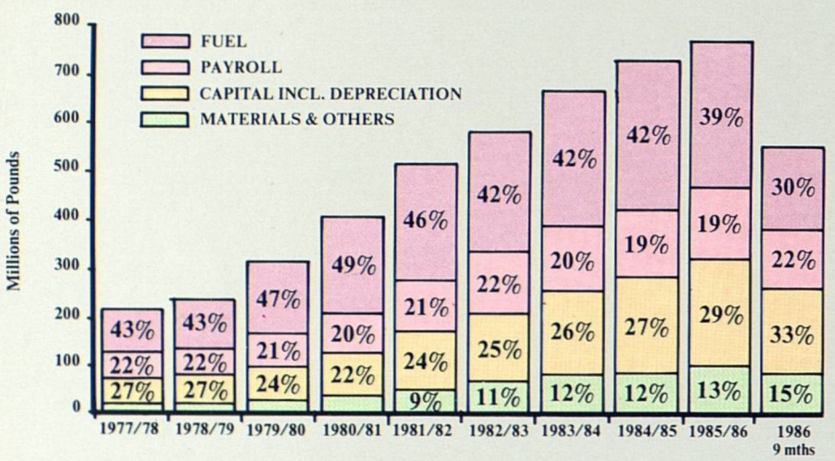
Analysis of Cumulative Investment in Fixed Assets



Graph 7

The increase in investment, Graph 7, shows the impact of investment in Moneypoint over recent years. Moneypoint is now nearing completion and levels of capital expenditure will decline significantly.

Analysis of Electricity Expenditure



Graph 8

The change in the composition of costs, Graph 8, arises mainly from lower fuel costs (oil & coal) and the higher capital charges associated with the commissioning of Moneypoint.

SUMMARY OF ELECTRICITY AND TRADING FIGURES

	Year Ended 31st March, 1986 £000's	Period Ended 31st December, 1986 (9 mths) £000's
Electricity		
Expenditure:		
Fuel	299,782	164,629
Payroll	142,997*	119,728
Capital Charges including Depreciation	220,254	179,005
Other Costs	102,503*	82,176
	765,536*	545,538
Revenue Income	759,483	552,454
Surplus/(Deficit) (Sch.A)	(6,053)*	6,916
Trading etc.		
Trading Results (Sch.B)	(1,093)	(502)
Consultancy Result (Sch.C)	28	9
Commercial Fisheries Result (Sch.K)	179*	Nil
Expenses on New Borrowings	(727)	(54)
Result for all Activities	(7,666)	6,369

The result for the period reduces the total deficit carried forward to 1987 to £65,746,000
*1985/86 figures altered to show Commercial Fisheries operations separately.

5 YEAR SUMMARY – FINANCIAL STATISTICS AND KEY RATIOS
(On Historical Cost Accounting Basis)

FINANCIAL STATISTICS	1982/'83 £m.	1983/'84 £m.	1984/'85 £m.	1985/'86 £m.	1986 (9 mths) £m.
OPERATIONS:					
Income	598	669	727	791	577
Expenditure	604	692	754	799	571
Surplus/(Deficit)	(6)	(23)	(27)	(8)	6
Cumulative Surplus/(Deficit)	(14)	(37)	(64)	(72)	(66)
FUNDING CAPITAL DEVELOPMENT PROGRAMME:					
Requirements:					
Capital Expenditure	241	227	240	172	100
Working Capital Movement	(14)	(34)	(32)	79	7
	227	193	208	251	107
Financing:					
Internal Resources	49	35	40	66	67
Borrowings	178	158	168	185	40
	227	193	208	251	107
SOURCES AND EMPLOYMENT OF CAPITAL:					
Sources:					
* Debt Liabilities Outstanding	916	1,052	1,179	1,224	1,242
Reserves	215	226	255	402	441
	1,131	1,278	1,434	1,626	1,683
Employment:					
Net Fixed Assets in Commission	608	704	739	1,119	1,325
Capital Works-in-Progress	380	465	618	350	194
Net Current Assets	143	109	77	157	164
	1,131	1,278	1,434	1,626	1,683
* Inclusive of Cumulative Currency Gain/(Loss)	(147)	(188)	(200)	(119)	(145)

KEY RATIOS					
Return on Average Net Assets (%)	9.9	9.0	8.9	10.5	8.6
Debt/Net Assets (%)	81.0	82.0	82.0	75.0	74.0
Current Ratio (Times)	1.9	1.5	1.4	2.0	2.1
Interest Cover (Times) (excl. interest Capitalised)	1.7	1.5	1.5	1.7	1.7
Foreign/Total Borrowings (%)	76.0	77.0	72.0	67.0	70.0
Internal Resources/ Cap. Expenditure (%)	20.0	16.0	17.0	39.0	68.0
Average Electricity Credit Period (Days from Date Billed)	26.2	26.0	27.3	30.1	25.6

Statement of Borrowings

Amount Borrowed £000's	Year(s) of Borrowing	Irish Pound Borrowings:			Balance Outstanding 31st March, 1986 £000's	Borrowed during period £000's	Redeemed during period £000's	Adjustment for currency changes £000's	**Balance Outstanding 31st December, 1986 £000's**
68,450	1928-59	Advances	– Minister for Finance		34,295	–	949	–	**33,346**
500	1962	Loan	– New Ireland Assurance Co. Ltd. 6%	– 1962/87	55	–	36	–	**19**
14,865	1972	Loan	– Central Bank of Ireland 7.25%	– 1972/87	2,295	–	1,502	–	**793**
12,000	1962-63	Stock	– 6%	– 1982/87	2,733	–	–	–	**2,733**
16,500	1964-65	Stock	– 6%	– 1984/89	5,181	–	–	–	**5,181**
13,000	1966-67	Stock	– 7%	– 1986/91	4,538	–	–	–	**4,538**
7,000	1968	Stock	– 7.25%	– 1988/93	1,571	–		–	**1,571**
9,250	1970	Stock	– 9.5%	– 1985/90	3,215	–	–	–	**3,215**
12,000	1972	Stock	– 9%	– 1992/95	3,497	–		–	**3,497**
16,800	1977	Stock	– 13%	– 1988	8,214	–	–	–	**8,214**
12,000	1978	Stock	– 13%	– 1990/92	8,646	–	–	–	**8,646**
21,000	1981	Stock	– 13%	– Premium (30%) 1986	18,417	–	18,417	–	**–**
14,000	1983	Stock	– 10%	– Premium (25%) 1988	13,648	–	–	–	**13,648**
20,000	1983	Stock	– 13.5%	– 2006/2008	19,779	–	–	–	**19,779**
35,000	1985	Stock	– 10%	– Premium (25%) 1991	35,000	–	–	–	**35,000**
761	1982-84	Project Finance		– 1982/87	233	–	111	–	**122**
					161,317	–	21,015	–	**140,302**
Floating Rate Facilities:									
25,500*	1978–85	– Domestic Banks		– 1981/92	16,375	–	4,375	–	**12,000**
30,000*	1981	– Domestic Banks		– 1987/89	30,000	–	–	–	**30,000**
15,000	1982	– Domestic Banks – Note Issue		– 1988	8,300	6,700	2,000	–	**13,000**
30,000*	1982	– Domestic Banks		– 1988/92	30,000	–	–	–	**30,000**
10,000*	1983	– Domestic Bank		– 1987/91	10,000	–	–	–	**10,000**
45,000*	1984	– Domestic Banks		– 1988/91	45,000	–	–	–	**45,000**
25,000*	1984	– Domestic Bank		– 1994	25,000	–	–	–	**25,000**
12,000*	1984	– Domestic Bank		– 1992/93	12,000	–	–	–	**12,000**
5,000*	1984	– Domestic Bank		– 1989/92	5,000	–	5,000	–	**–**
10,000	1984	– Domestic Banks		– 1990/92	9,000	1,000	–	–	**10,000**
10,000*	1984	– Domestic Bank		– 1989/92	10,000	–	–	–	**10,000**
25,000	1985	– Domestic Banks		– 1990/92	25,000	–	–	–	**25,000**
30,000*	1985	– Domestic Banks		– 1990/94	30,000	–	–	–	**30,000**
7,000*	1986	– Domestic Bank		– 1990/92	–	7,000	–	–	**7,000**
					255,675	14,700	11,375	–	**259,000**

000's		Foreign Currency Borrowings:						
Project Finance:								
IR£20,000*	1978	– European Investment Bank 9.2%	– 1983/98	25,956	–	1,087	(–) 596	**24,273**
IR£10,000*	1979	– European Investment Bank 9.35%	– 1983/99	12,557	–	499	353	**12,411**
IR£15,000*	1979	– European Investment Bank 9.45%	– 1983/99	19,571	–	488	437	**19,520**
IR£20,000*	1979	– European Investment Bank 9.45%	– 1983/99	26,099	–	650	583	**26,032**
IR£10,785*	1979	– European Investment Bank 8.45%	– 1985/94	12,068	–	1,486	1,345	**11,927**
IR£5,715*	1979	– European Investment Bank 12.0%	– 1985/96	8,853	–	269	(–) 614	**7,970**
IR£3,000*	1980	– European Investment Bank 8.75%	– 1984/95	3,416	–	295	372	**3,493**
IR£20,000*	1980	– European Investment Bank 8.75%	– 1985/95	24,404	–	2,110	2,658	**24,952**
IR£30,000*	1981	– European Investment Bank 7.65%	– 1986/96	38,336	–	1,687	4,469	**41,118**
IR£17,000*	1981	– European Investment Bank 9.3%	– 1985/2001	24,677	–	1,017	1,228	**24,888**
IR£22,000*	1981	– European Investment Bank 10.55%	– 1987/2001	28,270	–	–	2,686	**30,956**
IR£18,000*	1981	– European Investment Bank 14.0%	– 1987/2001	20,425	–	–	1,258	**21,683**
IR£16,000*	1982	– European Investment Bank 11.375%	– 1985/92	15,428	–	2,232	1,497	**14,693**
IR£20,000*	1982	– European Investment Bank 12.0%	– 1995/2002	17,709	–	–	(–) 1,393	**16,316**
IR£8,000*	1982	– European Investment Bank 7.0%	– 1986/94	9,626	–	818	1,089	**9,897**
IR£18,500*	1983	– European Investment Bank 6.4%	– 1988/98	19,172	–	–	2,243	**21,415**
IR£8,250*	1983	– European Investment Bank 6.5%	– 1984/95	7,319	–	663	823	**7,479**
IR£6,750*	1983	– European Investment Bank 12.15%	– 1989/98	6,672	–	–	404	**7,076**
IR£14,010*	1983	– European Investment Bank 10.4%	– 1989/98	14,296	–	–	1,365	**15,661**
IR£5,000*	1985	– European Investment Bank 9.4%	– 1990/2000	5,007	–	–	304	**5,311**
IR£15,000*	1986	– European Investment Bank 9.0%	– 1991/98	15,121	–	–	1,444	**16,565**
IR£11,400*	1986	– European Investment Bank 7.95%	– 1990/2001	–	11,417	–	(–) 25	**11,392**
IR£ 4,300*	1986	– European Investment Bank 9.8%	– 1990/2001	–	4,320	–	(–) 4	**4,316**
IR£ 4,300*	1986	– European Investment Bank 5.45%	– 1990/2001	–	4,191	–	18	**4,209**
IR£16,500*	1986	– European Investment Bank 7.7%	– 1990/2001	–	16,607	–	80	**16,687**
IR£16,790*	1986	– European Investment Bank 7.8%	– 1991/2001	–	16,744	–	(–) 53	**16,691**
US$14,500*	1969-73	– I.B.R.D., Washington 6.5%	– 1974/94	8,889	–	625	549	**8,813**
US$20,000*	1971-76	– I.B.R.D., Washington 7.25%	– 1976/87	4,147	–	1,863	135	**2,419**
US$15,000*	1972-77	– I.B.R.D., Washington 7.25%	– 1977/88	3,753	–	971	344	**3,126**
US$40,762	1981-86	– Export-Import Bank of the United States 8.0%	– 1986/98	30,844	562	1,267	(–) 2,122	**28,017**
US$10,840	1981-82	– Export-Import Bank of the United States 8.375%	– 1983/91	5,224	–	1,027	(–) 310	**3,887**
US$23,317	1981-86	– Export-Import Bank of the United States 8.0%	– 1988/2000	15,448	2,450	–	(–) 1,177	**16,721**
F.Fr.376,961	1973-85	– French Banks	– 1977/2004	18,515	–	2,534	604	**16,585**
Stg.£25,519	1971-86	– United Kingdom Banks/Suppliers	– 1975/90	9,595	219	2,361	(–) 686	**6,767**
Sw.Fr.124,308	1981-85	– Swiss Export Agency	– 1986/97	48,527	651	1,868	5,769	**53,079**
IR£735*	1977-81	– Other Borrowings		106	–	111	5	**–**
				500,030	57,161	25,928	25,082	**556,345**

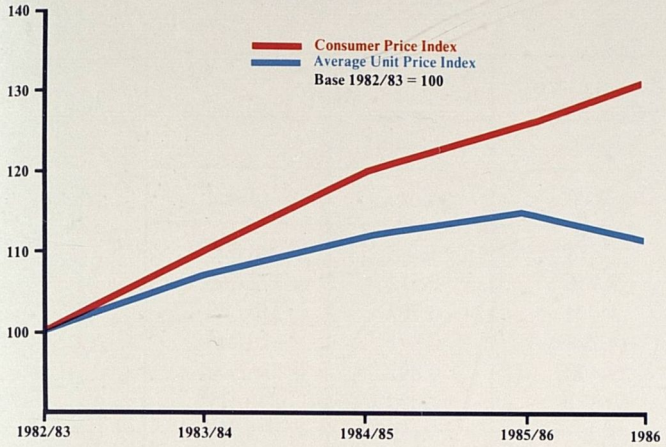
Statement of Borrowings

Amount Borrowed 000's	Year(s) of Borrowing	Foreign Currency Borrowings:		Balance Outstanding 31st March, 1986 £000's	Borrowed during period £000's	Redeemed during period £000's	Adjustment for currency changes £000's	**Balance Outstanding 31st December, 1986 £000's**
Fixed Rate Facilities:								
Registered Notes/Bonds and Bearer Bonds								
US$30,000	1972	– Japanese Banks 7.75%	– 1973/92	7,556	–	1,033	(–) 499	**6,024**
US$12,000	1977	– U.S. Syndicate 9.25%	– 1983/92	6,477	–	867	(–) 447	**5,163**
B.Fr.1,000,000	1973-74	– Belgian Banks 8.75%	– 1980/89	5,956	–	–	593	**6,549**
D.M.75,000	1980	– German Bank 8.5%	– 1988	24,826	–	–	2,778	**27,604**
D.M.150,000	1979	– Banking Syndicate 9.2%	– 1986/91	49,653	–	9,174	5,528	**46,007**
D.M.120,000	1982	– Banking Syndicate 9.75%	– 1983/92	27,805	–	4,402	3,097	**26,500**
Yen5,000,000	1982	– Japanese Bond Issue 9.1%	– 1987/92	21,473	–	–	1,075	**22,548**
Yen5,000,000	1983	– Japanese Banks 8.5%	– 1987/92	21,473	–	–	1,075	**22,548**
D.G.75,000	1983	– Dutch Banks – Note Issue 8.75%	– 1988	22,039	–	–	2,448	**24,487**
D.M.50,000	1984	– German Bank 8.05%	– 1988/93	16,551	–	–	1,852	**18,403**
Sw.Fr.50,000	1985	– Swiss Banks 5.375%	– 1992	19,782	–	–	2,315	**22,097**
				223,591	–	15,476	19,815	**227,930**
Floating Rate Facilities:								
US$20,000*	1980-81	– Banking Syndicate	– 1984/87	8,481	–	7,967	(–) 514	**–**
US$20,000*	1980	– Domestic Banks	– 1984/88	9,252	–	–	(–) 647	**8,605**
US$20,000*	1981	– Floating Rate Note Issue	– 1987	15,420	–	–	(–) 1,078	**14,342**
Can$30,000	1981	– Canadian Bank	– 1987/89	16,566	–	–	(–) 981	**15,585**
Can$25,000	1982	– Canadian Bank	– 1989	13,805	–	–	(–) 817	**12,988**
US$10,000	1983	– Middle East Bank	– 1988/91	7,710	–	7,378	(–) 332	**–**
US$25,000*	1984	– Middle East Bank	– 1987/89	19,275	–	–	(–) 1,348	**17,927**
US$15,000*	1985	– Banking Syndicate	– 1989/91	11,565	–	–	(–) 809	**10,756**
US$15,000*	1985	– Domestic Bank	– 1988	11,565	–	–	(–) 809	**10,756**
US$10,000*	1985	– Domestic Bank	– 1987	7,710	–	–	(–) 539	**7,171**
Stg.£20,000*	1986	– Sterling Acceptance Credit	– 1992	22,857	–	–	(–) 1,798	**21,059**
				144,206	–	15,345	(–) 9,672	**119,189**
TOTAL – FOREIGN CURRENCY BORROWINGS				867,827	57,161	56,749	35,225	**903,464**
TOTAL – IRISH POUND BORROWINGS				416,992	14,700	32,390	–	**399,302**
TOTAL – ALL BORROWINGS				£1,284,819	£71,861	£89,139	£35,225	**£1,302,766**

* Multi-Currency Facilities (Equivalent to amount of indicated currency at drawdown).

Total

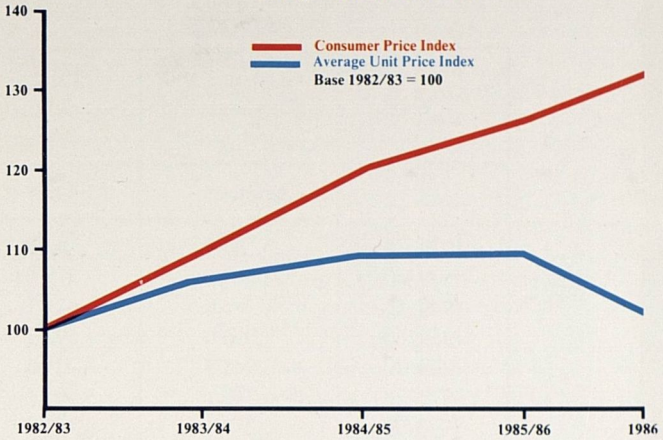
Average Unit Price vs. CPI



Graph 9

Industrial

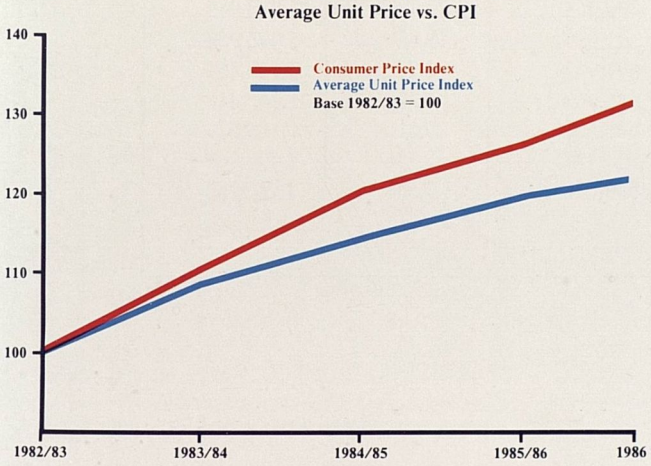
Average Unit Price vs. CPI



Graph 12

Domestic

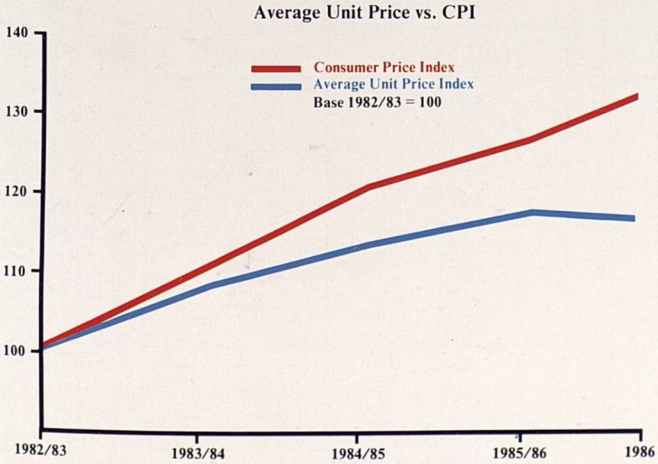
Average Unit Price vs. CPI



Graph 10

Commercial

Average Unit Price vs. CPI



Graph 11

Graphs 9, 10, 11 and 12 confirm the Board's success in its corporate objective to keep the price trend lower than national inflation as measured by the consumer price index.

ANALYSIS OF UNITS SOLD (for April to December 1986)

Class of Supply	Millions
Domestic	
General Supply	2,725.2
Night Rate	95.8
	2,821.0
Commercial	
General Supply	554.0
Heating Cooking and Waterheating	185.1
Night Space Heating	104.9
Public Lighting	83.8
Maximum Demand	645.3
Miscellaneous	61.5
	1,634.6
Industrial	
Maximum Demand	
High Tension	2,192.5
Low Tension	568.9
Miscellaneous	78.4
	2,839.8
Total	7,295.4

GROWTH OF ESB 1930-1986

Year	Units generated (and purchased)*	Units sold to Customers	Revenue from Electricity Sales	Average price per unit sold	Customers
	Millions	Millions	£000	Pence	Total
1929/30	60.9	43.2	478	1.108	48,606
1939/40	407.0	318.6	1,946	0.612	172,545
1949/50	784.8	626.1	4,774	0.763	310,639
1959/60	2,096.0	1,692.2	14,724	0.871	610,946
1969/70	5,245.7	4,411.6	39,400	0.892	786,500
1972/73	6,749.1	5,705.1	60,321	1.057	845,119
1973/74	7,253.1	6,152.0	73,063	1.188	873,764
1974/75	7,298.7	6,153.1	111,261	1.808	901,000
1975/76	7,534.6	6,259.0	136,277	2.177	931,469
1976/77	8,160.5	6,783.2	173,429	2.557	959,428
1977/78	8,828.4	7,329.9	210,029	2.865	986,256
1978/79	9,602.7	7,965.3	222,768	2.797	1,015,636
1979/80	10,213.6	8,560.3	300,024	3.505	1,043,428
1980/81	10,038.4	8,364.6	408,965	4.889	1,070,049
1981/82	10,385.9	8,661.7	517,029	5.969	1,096,950
1982/83	10,194.4	8,518.3	571,992	6.715	1,122,461
1983/84	10,559.2	8,903.5	641,460	7.205	1,145,818
1984/85	10,972.7	9,274.2	696,506	7.510	1,168,679
1985/86	11,465.1	9,787.8	757,172	7.736	1,194,765
9 mths 1986	8,656.6	7,295.4	550,620	7.548	1,207,051

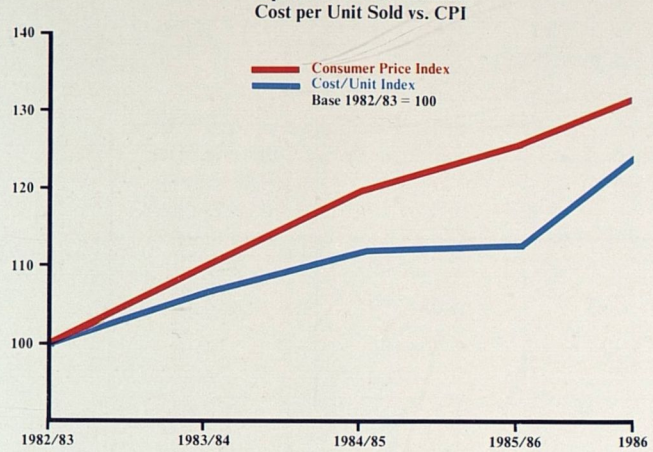
*Excluding Units absorbed by Storage Pumping

ELECTRICITY SALES BY SECTOR
(Million Units)

YEAR	DOMESTIC	COMMERCIAL	INDUSTRIAL	TOTAL
1977/78	3,092	1,491	2,748	7,330
1978/79	3,404	1,624	2,938	7,965
1979/80	3,600	1,722	3,238	8,560
1980/81	3,515	1,774	3,076	8,365
1981/82	3,659	1,887	3,116	8,662
1982/83	3,599	1,911	3,009	8,518
1983/84	3,703	2,002	3,198	8,904
1984/85	3,795	2,074	3,405	9,274
1985/86	4,001	2,234	3,553	9,788
9 mths 1986	2,821	1,635	2,840	7,296

Distribution

Operation & Maintenance
Cost per Unit Sold vs. CPI



Graph 13

During the 9 months period from April to December 1986 there were a number of significant factors which impacted on the trend, Graph 13.

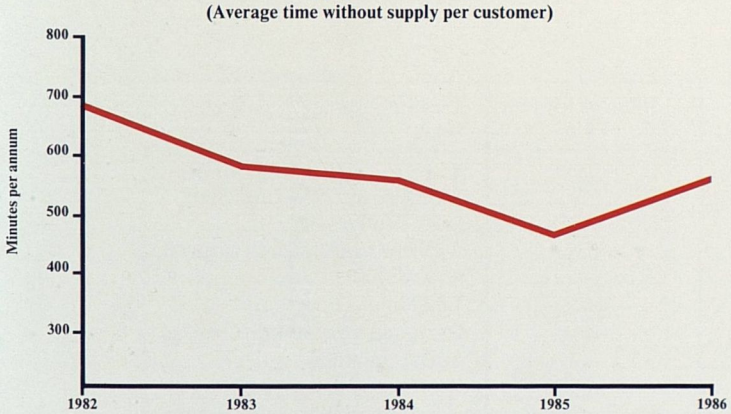
— Fault maintenance expenditure was up by £1.5 m mainly due to Hurricane Charlie and perhaps the biggest lightning storm ever to hit the Distribution network in June of 1986.

— Because of the age of the Distribution network with 20% over 40 years old a greater emphasis was placed on planned maintenance programme reflecting increased costs.

— The units sold for the 9 months April-December represents only 70% of a full year.

Supply Continuity

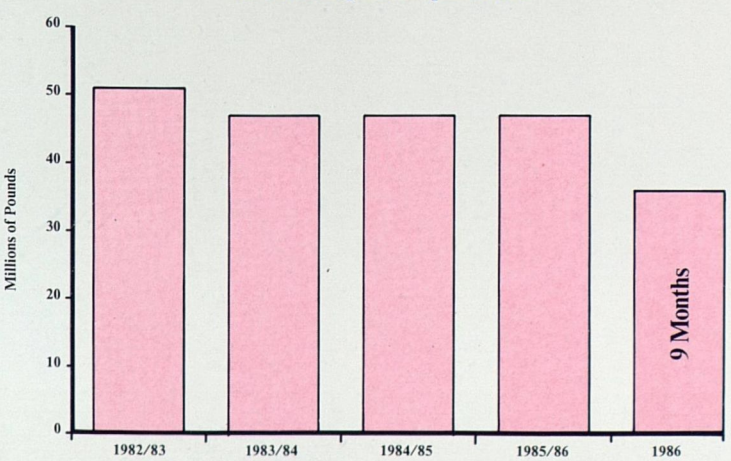
(Average time without supply per customer)



Graph 14

Supply continuity showed a welcome improvement during the years April 1983 to March 1986, Graph 14. Continuity of supply reflects not only the state of the network but also the weather conditions to which it is subjected i.e. the incidence of wind, snow and lightning storms. The favourable trend was due to network improvements and benign weather conditions. In the calendar year 1986 supply continuity disimproved to 568 min per consumer reflecting the intense and widespread lightning storm of the summer of 1986.

Annual Capital Expenditure



Graph 15

Distribution capital expenditure, Graph 15, has remained stable since 1983. Indications are that the trend is likely to decline for the next few years at least.

DISTRIBUTION SYSTEM 31st DECEMBER 1986
DISTRIBUTION SYSTEM (INCLUDING RURAL NETWORKS)

Transformer Station	No. in Commission	Increase for Year	Total Capacity in KVA	Increase (+) or Decrease (-) for year in KVA
38kV Stations	388	+6	2,915,900	56,000
10kV Stations excluding U.R.D.	130,091	+1849	4,084,758	83,450
10kV Stations U.R.D.	1,881	Nil	108,686	Nil
5kV Stations	6	Nil	900	Nil

Distribution Lines & Cables	Length - km -	Increase for year - km -	Description/ range
38kV Lines	5,646	+15	3 x 35 to 3 x 50 sq mm Copper 3 x 100 to 3 x 300 sq mm Steel Core Aluminium
38kV Cables	299	+0.6	3 x 95 to 3 x 680 sq mm Copper and Aluminium
10kV Lines	75,740	+401.7	Single and Three Phase
10kV and 5kV Cables	3,330	+48.0	2 x 16 to 3 x 240 sq mm Copper and Aluminium
3.3kV Cables	4	Nil	3 x 185 sq mm

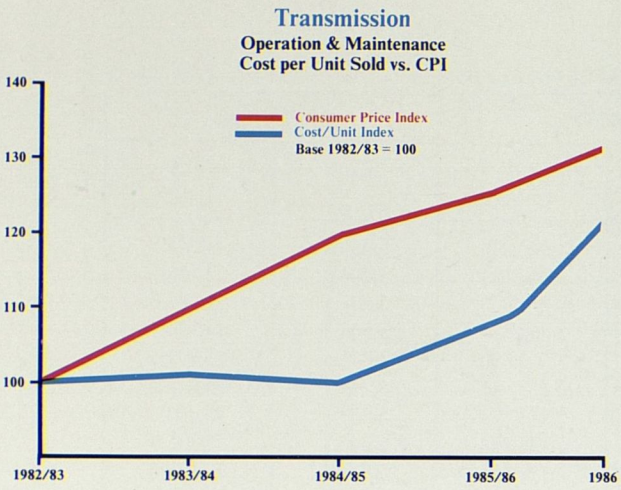
DISTRIBUTION SYSTEM TRENDS – CUMULATIVE DATA

Year	No. of Customers	TRAFOS		LINES (km)	
		38kV (kVA)	10kV (kVA)	38kV	10kV
77/78	986,256	2,255,900	3,022,000	5,361.7	71,545.3
78/79	1,015,636	2,309,900	3,137,100	5,444.4	72,586.7
79/80	1,043,428	2,398,900	3,270,000	5,501.5	73,583.7
80/81	1,070,049	2,523,100	3,369,881	5,566.3	74,344.7
81/82	1,096,950	2,647,300	3,563,530	5,645.5	75,171.1
82/83	1,122,461	2,716,700	3,683,911	5,714.7	76,042.3
83/84	1,145,818	2,792,500	3,843,827	5,807.2	76,850.5
84/85	1,168,679	2,828,700	3,976,454	5,890.8	77,802.0
85/86	1,194,765	2,859,900	4,110,894	5,929.4	78,623.6
1986 (9 mths)	1,207,051	2,915,900	4,194,344	5,945	79,074

FREQUENCY RANGE
(Hertz)

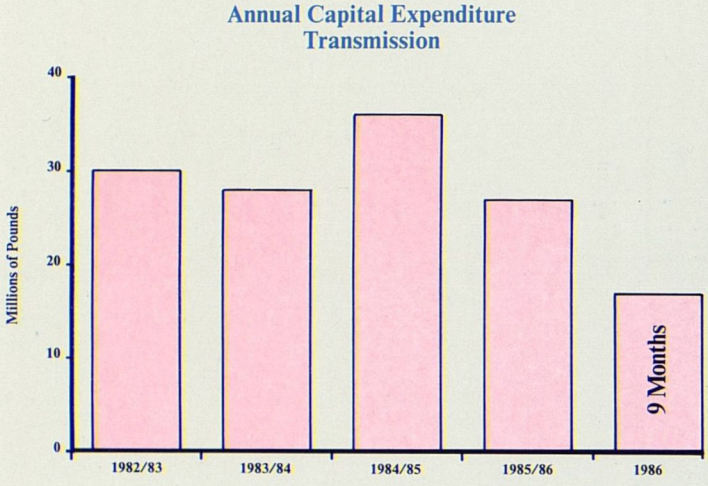
YEAR	FREQUENCY RANGE
1977/78	49.86 to 50.14
1978/79	49.78 to 50.22
1979/80	49.79 to 50.21
1980/81	49.84 to 50.16
1981/82	49.82 to 50.18
1982/83	49.79 to 50.21
1983/84	49.78 to 50.22
1984/85	49.80 to 50.20
1985/86	49.82 to 50.18
1986 (9 mths)	49.82 to 50.18

The frequency was maintained within the range shown for 95% of the time.



Graph 16

The upward trend, Graph 16, is due to increased maintenance activity, increased operating costs, and additional mast interference payments associated with the 400kV developments.



Graph 17

The capital expenditure, Graph 17, on Transmission projects continues to decrease with the completion of the 400kV developments.

PLANT AVAILABILITY – TRANSMISSION

YEAR	AVAILABILITY (%)
1977/78	94.9
1978/79	96.5
1979/80	96.4
1980/81	97.3
1981/82	95.4
1982/83	96.4
1983/84	97.0
1984/85	97.4
1985/86	95.3
1986 (9 mths)	95.0

TRANSMISSION SYSTEM AT 31st DECEMBER 1986

Stations

Transformer/Switching Stations	No. in Commission	Increase for Year	Total Capacity in kVA	Increase in Capacity for Year in kVa
400 kV Stations	3	1	660,000 at 17/400 kV 1,000,000 at 400/220 kV	+330,000 +500,000
220 kV Stations	17	+1	600,000 at 275/220 kV 4,253,000 at 220/110 kV 1,180,000 at 20/220 kV 420,000 at 13/220 kV 1,072,000 at 10/220 kV 693,000 at 110/38 kV 412,000 at 10/110 kV 20,000 at 110/6 kV	Nil +250,000 Nil Nil Nil Nil Nil Nil
110 kV Stations	79	Nil	2,994,000 at 110/38 kV 159,000 at 110/10 kV 40,000 at 110/6 kV 112,400 at 38/10 kV 1,191,500 at 10/110 kV 88,000 at 10/38/110 kV 5,000 at 10/38 kV	Nil +2,500 Nil Nil Nil Nil Nil

Lines and Cables

Lines and Cables	Length km.	Increase for Year km.	Description
400 kV Lines	437.5	+208.3	3 x twin 600 sw. mm. single circuit SCA
275 kV Lines	10.5	Nil	6 x twin 485 sq. mm. double circuit SCA
220 kV Lines	82.6	Nil	6 x 600 sq. mm. double circuit SCA
220 kV Lines	1,133.5	+92.4	3 x 600 sq. mm. single circuit SCA
220 kV Lines	276.8	Nil	3 x 425 sq. mm. single circuit SCA
220 kV Lines	3.9	Nil	3 x 425 sq. mm. twin, SCA
110 kV Lines	1.8	Nil	6 x 95 sq. mm. double circuit copper
110 kV Lines	32.6	-8.3	3 x 95 sq. mm. single circuit copper
110 kV Lines	113.0	+3.4	6 x 200 and 6 x 300 sq. mm. double circuit SCA
110 kV Lines	3,495.5	+8.3	3 x 200 to 3 x 425 sq. mm. single circuit SCA
400 kV Cables	1.8	+1.2	Oil filled
220 kV Cables	19.2	Nil	High pressure oil pipe-type
220 kV Cables	44.3	Nil	Oil filled
110 kV Cables	43.6	Nil	Oil filled
110 kV Cables	38.8	Nil	Pipe compression
110 kV Cables	1.7	+0.1	Cross-linked polyethylene

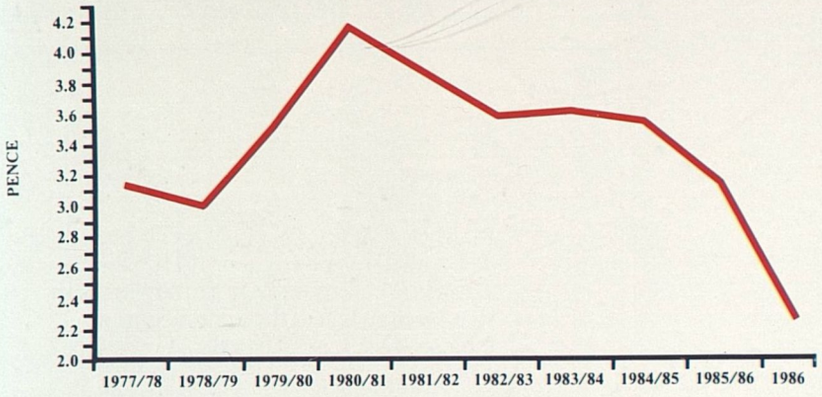
TRANSMISSION CAPACITY TRENDS
Station Capacity in kVA – Cumulative Date

YEAR	110 kV	220 kV	400 kV
1977/78	4,276,900	4,607,000	—
1978/79	3,991,900	5,202,000	—
1979/80	4,150,900	5,952,000	—
1980/81	4,475,400	6,262,000	—
1981/82	4,664,400	6,887,000	—
1982/83	4,508,900	7,682,000	—
1983/84	4,556,900	7,900,000	—
1984/85	4,582,400	8,400,000	—
1985/86	4,587,400	8,400,000	830,000
1986 (9 mths)	4,589,900	8,650,000	1,660,000

TRANSMISSION CAPACITY TRENDS
Kilometres of Lines/Cables – Cumulative Data

YEAR	110 kV	220 kV	275 kV	400 kV
1977/78	3,390.5	1,067.4	10.5	—
1978/79	3,401.2	1,180.2	10.5	—
1979/80	3,411.7	1,180.2	10.5	—
1980/81	3,430.8	1,313.6	10.5	—
1981/82	3,476.4	1,424.2	10.5	—
1982/83	3,546.2	1,427.2	10.5	—
1983/84	3,668.6	1,453.3	10.5	—
1984/85	3,710.3	1,453.3	10.5	0.6
1985/86	3,723.5	1,467.9	10.5	229.8
1986 (9 mths)	3,727.0	1,560.3	10.5	439.3

Delivered Cost of Fuel per Unit Sold 1986 Prices

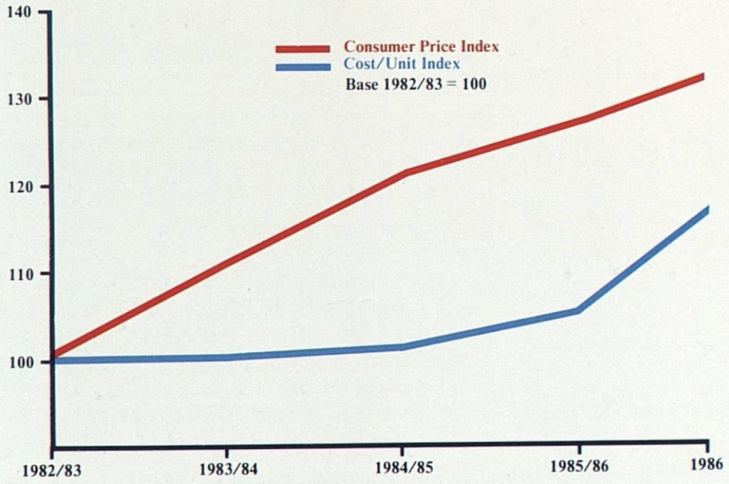


Graph 18

The improving trend in real fuel costs continued in the past year, Graph 18, mainly due to cheaper oil and coal. Fuel prices, in real terms, are now at their lowest for a decade.

Generation

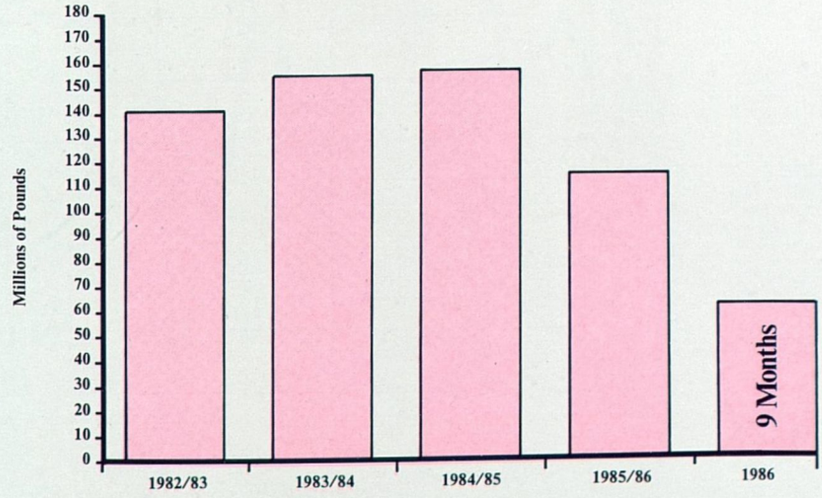
Operations & Maintenance Cost per Unit Sent Out vs. CPI



Graph 19

The trend in operations and maintenance costs (excluding fuel) continued below the level of inflation, Graph 19. The recent upward trend arises mainly from the "9 month Year" within which the bulk of annual maintenance expenditure was incurred.

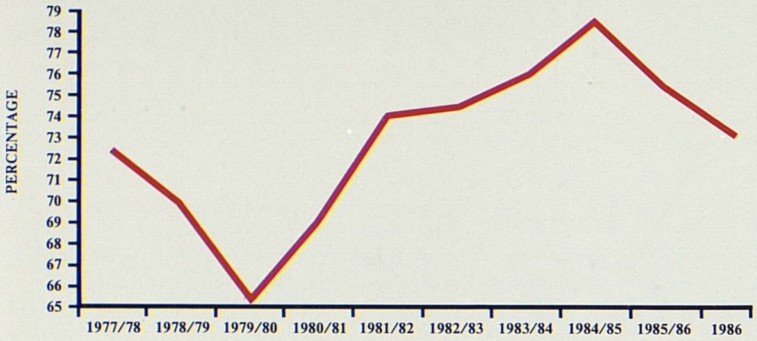
Annual Capital Expenditure Generation



Graph 20

Recent trends, Graph 20, reflect the tailing-off of new projects. Capital investment in new plant construction will finish in 1988 and further new investment is not planned.

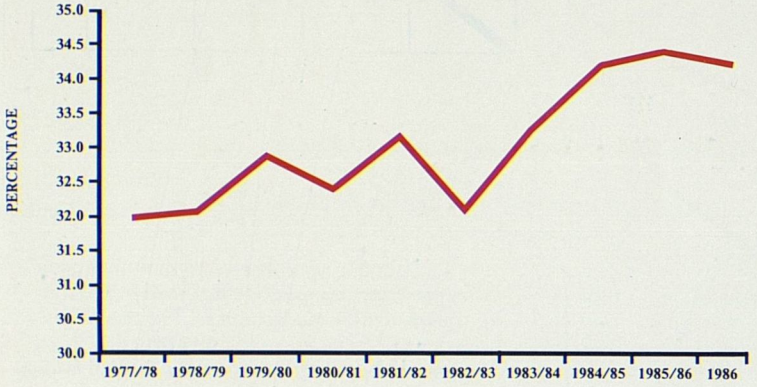
Generating Plant Availability



Graph 21

Plant availability, Graph 21, at 73.2% was down on last year's figures of 75.5%. This is a distortion caused entirely by the "9 month year", within which the bulk of annual maintenance was executed.

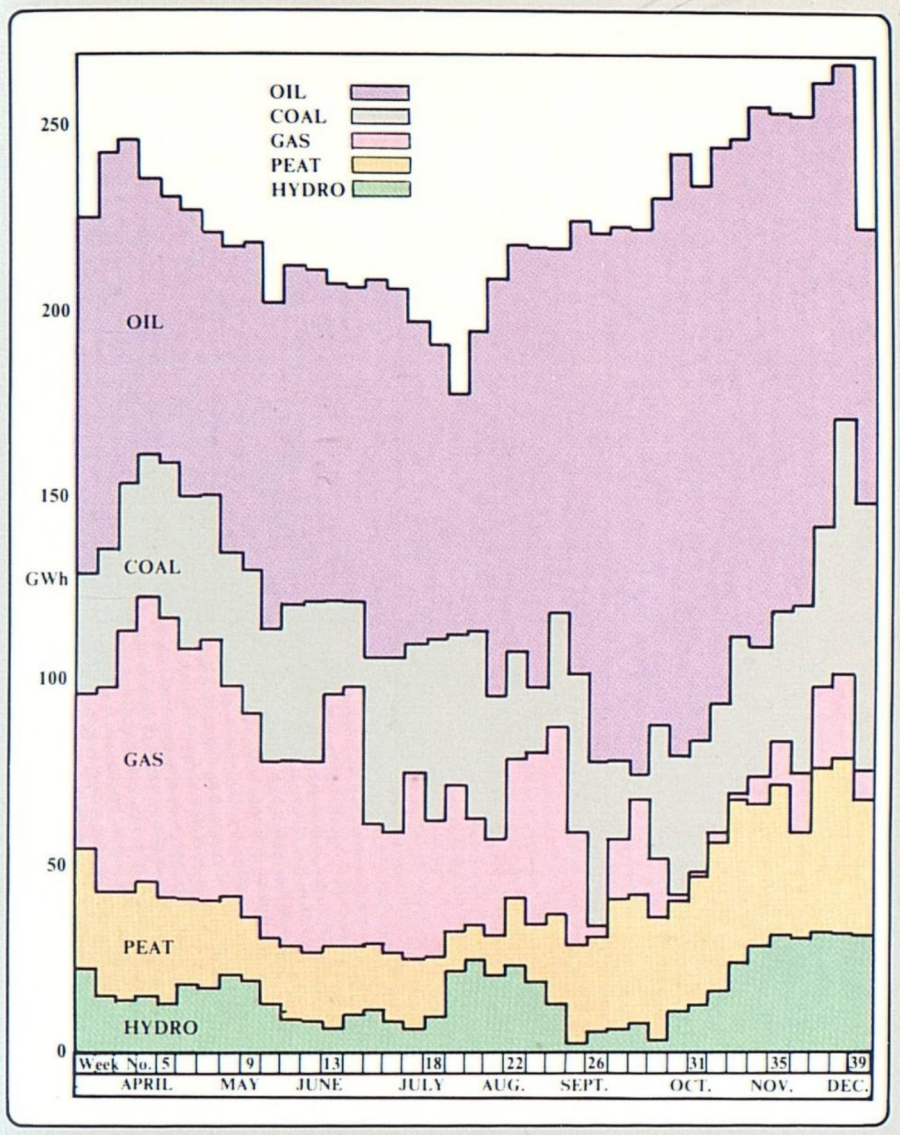
Thermal Efficiency of Generating Plant



Graph 22

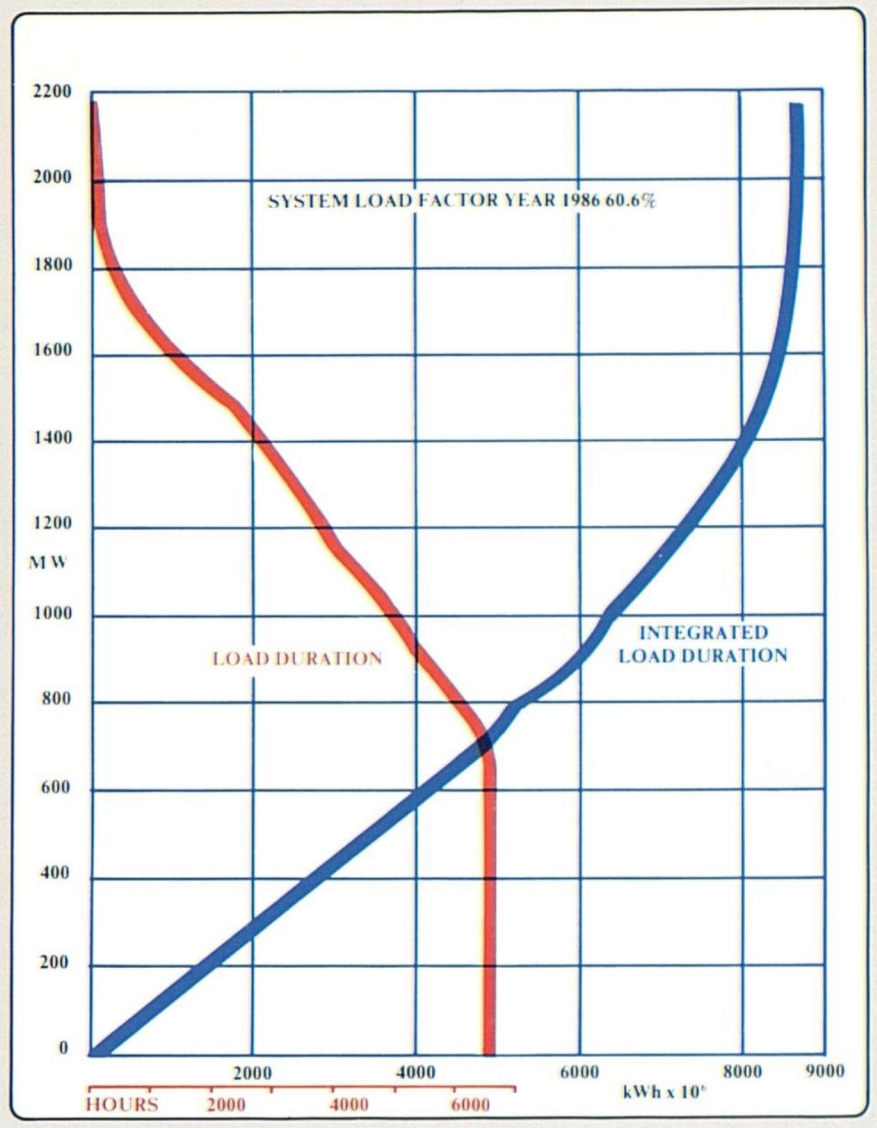
The overall efficiency, Graph 22, was 34.2%, compared with 34.4% for 1985/86. This drop reflects the reduced generation from high-merit gas-burning plant, due to a lower gas supply in the period.

Weekly System Demand 1986



Graph 23

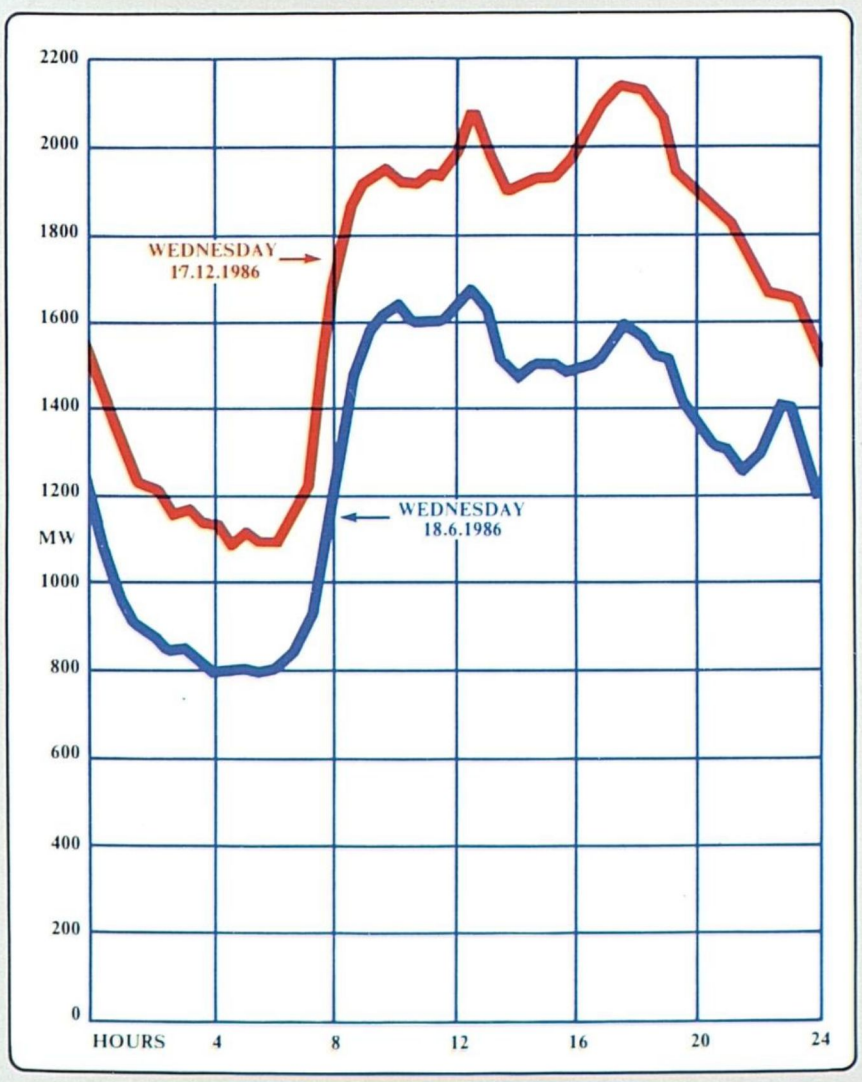
System Load Duration & Integrated Load Duration Curves 1986



Graph 24

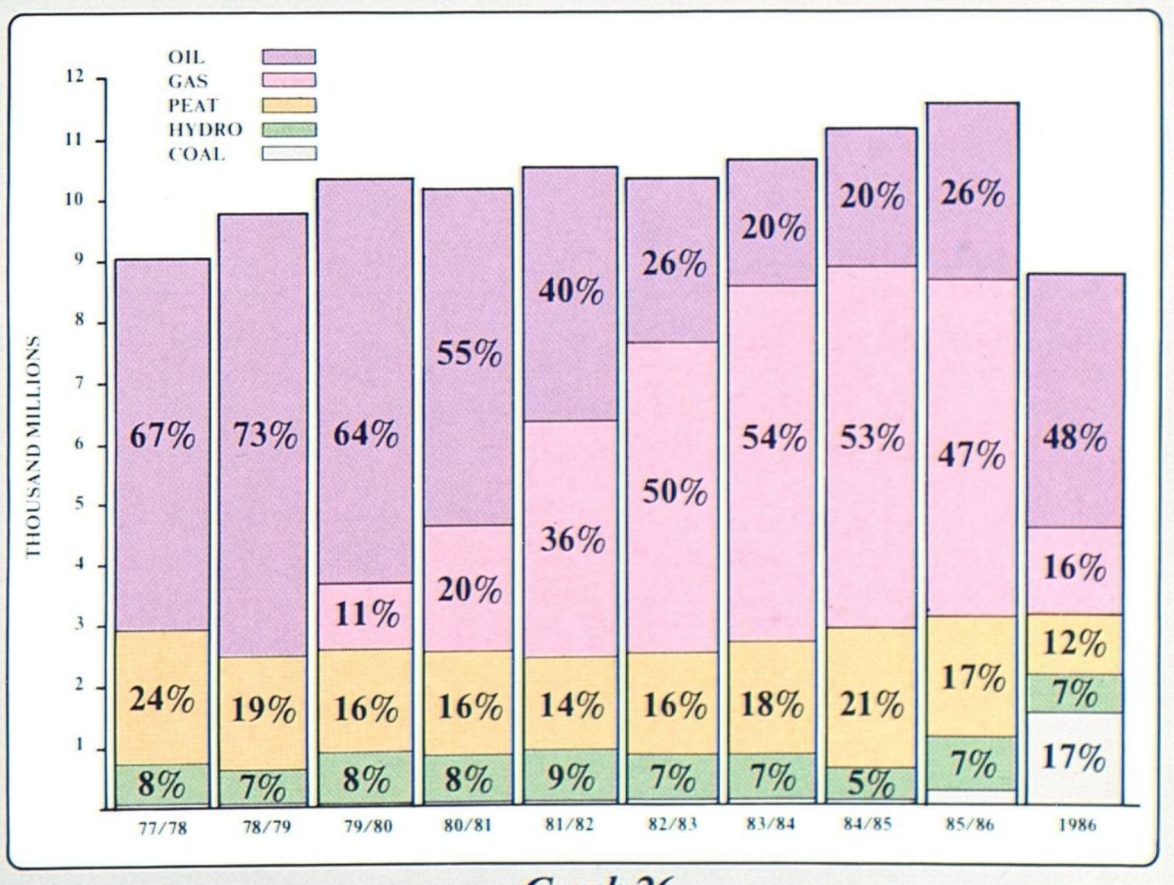
For the "9 month year" the load factor was 60.6%. On an annualised basis, the figure was 62.6%, the highest ever.

System Daily Load Curves 1986



Graph 25

Energy Sources — Units Generated 1977/78 to 1986



Graph 26

STATEMENT OF GENERATION COSTS

Generating Stations	Fuel	Operation	Maintenance	Local Charges	Works Cost		Depreciation	Total Cost	
	£000's	£000's	£000's	£000's	1986 (9 Months) £000's	1985/1986 (12 Months) £000's	£000's	1986 (9 Months) £000's	1985/1986 (12 Months) £000's
Coal/Oil/Gas									
Marina	10,141	1,621	1,472	317	13,551	26,853	604	14,155	27,695
Arigna	2,159	536	360	91	3,146	4,618	4	3,150	4,624
Great Island	7,768	1,275	1,136	320	10,499	15,233	665	11,164	16,116
Tarbert	27,765	1,438	2,297	456	31,956	69,738	1,238	33,194	72,839
Poolbeg	26,030	2,195	4,113	1,077	33,415	74,461	3,152	36,567	80,208
Aghada	21,420	1,294	2,639	431	25,784	40,174	2,420	28,204	48,617
North Wall	14,025	916	799	275	16,015	31,940	4,026	20,041	35,218
Moneypoint	23,041	3,504	3,695	1,069	31,309	11,772	9,045	40,354	13,748
Sod Peat (Machine)									
Portarlington	873	676	482	112	2,143	3,477	4	2,147	3,484
Allenwood	754	945	658	198	2,555	6,005	6	2,561	6,014
Milled Peat									
Ferbane	5,385	1,633	1,503	307	8,828	14,285	13	8,841	14,305
Rhode	5,796	1,246	1,365	237	8,644	16,624	11	8,655	16,643
Bellacorick	2,331	935	1,025	180	4,471	9,631	158	4,629	9,841
Shannonbridge	9,416	1,518	1,576	313	12,823	18,561	1,649	14,472	20,745
Lanesborough	6,983	1,248	1,023	239	9,493	14,952	1,626	11,119	17,107
Sod Peat (Hand-Won)									
Three 5MW Stations	389	670	284	136	1,479	2,060	3	1,482	2,079
Total-Fuel Stations	164,276	21,650	24,427	5,758	216,111	360,384	24,624	240,735	389,283
Hydro									
Shannon		712	1,635	352	2,699	3,001	30	2,729	3,043
Erne		371	591	166	1,128	1,373	101	1,229	1,517
Liffey		95	416	64	575	781	26	601	815
Lee		235	241	87	563	747	60	623	827
Clady		58	103	16	177	187	17	194	209
Pumped Storage Turlough Hill		484	648	174	1,306	1,344	484	1,790	1,988
Total-Hydro Stations		1,955	3,634	859	6,448	7,433	718	7,166	8,399
Total-All Stations	164,276	23,605	28,061	6,617	222,559	367,817	25,342	247,901	397,682
Electricity Purchased in Bulk (net)								353	389
General Charges								18,203	22,460
Costs (current and remaining) of Stations now decommissioned								1,442	3,533
Fisheries (Net Conservation Cost)								605	809
TOTAL COST								£268,504	£424,873

NOTE: Station works cost per unit sent-out is included with the Generating Statistics under the heading "Particulars and Performance of Plant".

INSTALLED CAPACITY

YEAR	MW	YEAR	MW
1977/78	2,540	1982/83	3,175
1978/79	2,895	1983/84	3,260
1979/80	2,863	1984/85	3,247
1980/81	3,117	1985/86	3,547
1981/82	3,287	1986 (9 mths)	3,852

PERCENTAGE INSTALLED CAPACITY ANALYSED BY FUEL

YEAR	OIL	PEAT	HYDRO	COAL	GAS
1977/78	62	18	20	1	—
1978/79	59	15	18	1	7
1979/80	59	16	18	1	7
1980/81	54	14	16	—	15
1981/82	51	14	16	—	20
1982/83	46	15	16	—	23
1983/84	27	15	16	—	41
1984/85	24	15	16	—	45
1985/86	22	14	14	9	41
1986 (9 mths)	20	13	13	16	38*

*Of the plant classified as Gas, 82% can also burn Oil.

PERCENTAGE PLANT FORCED OUTAGE RATE

YEAR	%	YEAR	%
1977/78	11.8	1982/83	12.1
1978/79	22.5	1983/84	8.0
1979/80	21.3	1984/85	6.2
1980/81	15.9	1985/86	12.3
1981/82	11.4	1986 (9 mths)	12.9

THERMAL EFFICIENCY PERCENTAGE
(of Conversion of Primary Energy to Electricity)

	1977/78	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986 (9 mths)
GAS	—	—	34.6	36.0	37.0	35.1	37.3	38.7	38.7	35.2
OIL	35.9	35.2	36.1	35.8	35.8	34.6	35.2	36.5	36.2	36.8
MILLED PEAT	25.2	24.0	23.7	23.4	23.0	23.8	24.0	25.2	24.8	24.8
SOD PEAT	23.0	23.5	21.5	20.8	20.0	21.2	21.5	22.6	22.0	19.6
COAL	—	—	—	—	—	—	—	—	—	35.5*
OVERALL:	32.0	32.1	32.9	32.4	33.2	32.1	33.3	34.2	34.4	34.2

*Includes native coal.

STATION STAFF NUMBERS PER MW OF INSTALLED CAPACITY

YEAR	PEAT	OIL	GAS
1977/78	2.26	0.69	—
1978/79	2.29	0.58	—
1979/80	2.39	0.61	1.02
1980/81	2.49	0.60	0.66
1981/82	2.67	0.61	0.54
1982/83	2.46	0.62	0.48
1983/84	2.21	0.51	0.45
1984/85	2.20	0.50	0.45
1985/86	2.04	0.59	0.45
1986 (9 mths)	2.05	0.49	0.45

AGE OF GENERATING PLANT AT YEAR-END

Age / Fuel Type	Under 5 Years MW	5 to 10 Years MW	10 to 15 Years MW	15 to 20 Years MW	20 to 25 Years MW	25 to 30 Years MW	Over 30 Years MW	Total MW
Oil	—	250	370	148	—	—	—	768
Peat	90	—	40	—	190	115	52	487
Gas	335*	825*	—	240	60	—	—	1460
Hydro	—	1	292	—	—	31	188	512
Coal	610	—	—	—	—	15	—	625
Total MW	1035	1076	702	388	250	161	240	3852

*Combined Cycle plant at Marina and North Wall uses new heat recovery boilers to drive refurbished turbines.

GENERATION STATISTICS FOR THE NINE MONTHS (APRIL-DECEMBER) 1986

Station	Nine Month Period 1986			Year 1985/86
	Generated Million Units	Station Use Million Units	Sent Out Million Units	Sent Out Million Units
Ardnacrusha	307.1	2.2	304.9	387.5
Cliff	66.4	0.7	65.7	89.2
Cathaleen's Fall	161.9	1.5	160.4	223.8
Carrigadrohid	19.8	0.3	19.5	20.5
Inniscarra	50.5	0.6	49.9	58.4
Pollaphuca	16.8	0.6	16.2	20.0
Golden Falls	6.1	0.1	6.0	7.5
Leixlip	11.0	0.1	10.9	14.6
Clady	13.3	0.1	13.2	17.5
Ferbane	154.4	14.3	140.1	248.9
Rhode	179.1	17.6	161.5	359.8
Bellacorick	66.4	6.2	60.2	189.3
Shannonbridge	307.0	33.7	273.3	437.4
Lanesboro	249.4	23.5	225.9	399.5
Portarlington	25.6	2.7	22.9	40.5
Allenwood	20.7	2.1	18.6	105.7
Cahirciveen	4.0	0.7	3.3	7.1
Screeb	0.7	0.2	0.5	-0.1
Gweedore	2.5	0.5	2.0	6.2
Marina	423.2	7.3	415.9	932.7
Aghada	730.1	27.4	702.7	1,415.5
Poolbeg	1,694.0	88.1	1,605.9	2,503.7
North Wall	473.5	8.6	464.9	1,231.5
Moneypoint	1,462.1	124.2	1,337.9	216.7
Great Island	482.5	21.7	460.8	301.7
Tarbert	1,808.9	107.3	1,701.6	1,767.2
Arigna	44.8	3.1	41.7	72.4
Turlough Hill (generation)	258.7	3.6	255.1	328.4
Turlough Hill (pumping)	394.8	—	394.8	533.9
ESB Import	—	—	—	—
ESB Export	—	—	—	—
Purchased	10.9	—	10.9	11.6
System Demand	8,656.6	499.0	8,157.6	10,880.8
Maximum Daily Generation — Million Units			40.4	40.8
Maximum Load Generated in MW			2178	2130

NOTE: System demand is total units generated by all stations including Turlough Hill plus ESB Import and units purchased, less Turlough Hill pumping and ESB Export.

PARTICULARS AND PERFORMANCE OF GENERATING PLANT

Thermal Stations

Station	Plant Particulars					Plant Performance for 9 months (Apr-Dec) '86			
	Generating Sets		Boilers			Units sent out millions	Plant load factor %	Fuel cost per unit sent out (pence)	Works cost per unit sent out (pence)*
	No.	Total Capacity MW	No.	Total Capacity Tonne/hr.	Fuel Type				
Bellacorick	2	40	2	191	Milled Peat	60.2	25.3	3.870	7.424
Ferbane A	3	60	3	300	Milled Peat	65.0	18.7	4.337	7.516
Ferbane B	1	30	1	130	Milled Peat	75.1	41.2	3.419	5.253
Shannonbridge	3	125	3	522	Milled Peat	273.3	37.5	3.445	4.692
Lanesboro	2	85	2	349	Milled Peat	225.9	44.8	3.091	4.202
Portarlington	1	12	3	205	Sod Peat	22.9	32.5	3.810	9.359
Allenwood	2	40	4	273	Sod Peat	18.6	7.9	4.064	13.768
Cahirciveen	1	5	1	28	Sod Peat				
Gweedore	1	5	1	28	Sod Peat	5.8	7.3	6.735	25.574
Screeb	1	5	1	28	Sod Peat				
Rhode A	2	40	2	191	Milled Peat	34.6	14.7	4.474	8.591
Rhode B	1	40	1	173	Milled Peat	126.9	53.6	3.348	4.470
Moneypoint #	2	610	2	1872	Coal	1337.9	42.0	1.722	2.340
Arigna	1	15	1	75	Coal	41.7	45.6	5.171	7.534
Great Island	3	240	3	853	Oil	460.8	30.7	1.686	2.279
Marina	1	60	1	250	Gas/Oil		9.7		
	1	30	1	132	HR**	415.9		2.438	3.258
	1	85	Combustion Turbine		Gas		51.1		
Aghada	1	270	1	800	Gas		26.6		
	3	255	Combustion Turbines		Gas/Oil	702.7	15.6	3.048	3.669
Poolbeg	3	510	3	1560	Gas/Oil				
	2	28	Combustion Turbines		Oil	1605.9	48.1	1.621	2.081
Tarbert	2	500	2	1600	Oil	1701.6	55.2	1.632	1.878
North Wall	1	104	Combustion Turbine		Gas/Oil		24.6		
	3	42	1	174	HR**	464.9	32.0	3.017	3.445
	1	104	Combustion Turbine		Gas/Oil				

Excludes plant decommissioned as of the end of the year: Ringsend 270 MW, Tarbert 120 MW, Marina 30 MW.

* Works cost per unit is affected by items such as load factor and load profile; the figures in this column cannot, therefore, be used directly for comparing station performances.

** Heat Recovery: Operated on combined cycle with associated combustion turbine.

One unit in commission for part of the period only.

PARTICULARS AND PERFORMANCE OF GENERATING PLANT

Hydro Stations

Station	Average Annual generation million units	Plant Particulars		Plant Performance for 9 months (Apr-Dec. '86)		
		Generating Sets		Units sent out millions	Plant load factor %	Works cost per unit sent out (pence)
		No.	Capacity (MW)			
Ardnacrusha	315	5	86	304.9	54.5	0.885
Pollaphuca	45	2	30	16.2	8.5	1.736
Golden Falls		1	4	6.0	23.4	
Leixlip		1	4	10.9	42.1	
Cliff	275	2	20	65.7	50.7	0.499
Cathaleen's Fall		2	45	160.4	54.9	
Carrigadrohid	77	1	8	19.5	37.7	0.810
Inniscarra		2	19	49.9	40.6	
Clady	13	1	4	13.2	50.7	1.352
Turlough Hill — Pumped Storage	—	4	292	255.1	—	—

PEAK LOAD TRENDS

YEAR	MW
1977/78	1,802
1978/79	1,934
1979/80	1,971
1980/81	1,892
1981/82	1,999
1982/83	1,924
1983/84	1,994
1984/85	2,092
1985/86	2,130
1986 (9 mths)	2,178

SYSTEM DEMAND TRENDS

YEAR	Million Units
1977/78	8,828
1978/79	9,603
1979/80	10,214
1980/81	10,038
1981/82	10,386
1982/83	10,194
1983/84	10,559
1984/85	10,973
1985/86	11,465
1986 (9 mths)	8,657

DISTRIBUTION REGIONS AND MANAGERS

DUBLIN
Leopardstown Road,
Foxrock,
Dublin 18.
Telephone 01-881683.

J. J. McEvoy,
B.E., D.P.A., C.Eng., F.I.E.I.

NORTH EAST
Chapel Street,
Dundalk,
Co. Louth.
Telephone 042-32211.

D. Doherty,
B.E., M.I.E., B.Comm., C.Eng., M.I.E.I.

NORTH WEST
Castle Street,
Sligo.
Telephone 071-5261.

P.Osborne,
B.E., B.Sc., C.Eng., F.I.E.I.

SOUTH EAST
The Mall,
Waterford.
Telephone 051-73301.

B. Rafferty,
B.Sc., C.Eng., M.I.E.I.

SOUTH WEST
Wilton,
Cork.
Telephone 021-44988.

K. J. O'Hara,
B.E., M.I.E., C.Eng., F.I.E.I.

WEST
Bishop's Quay,
Limerick.
Telephone 061-45599.

D. Greene,
B.E., C.Eng., F.I.E.I.

GENERATION REGIONS AND MANAGERS

EASTERN
Pigeon House Road,
Dublin 4.
Telephone 01-685300.

D. MacMahon,
B.E., C.Eng., F.I.E.I.

HYDRO
Ardnacrusha,
Co. Limerick.
Telephone 061-345588.

C. O'Dowd,
B.E., C.Eng., F.I.E.I.

MIDLAND
Cloghan,
Co. Offaly.
Telephone 0506-55225.

W.Flood,
B.E., C.Eng., F.I.E.I.

SOUTHERN
Centre Park Road,
Cork.
Telephone 021-964244.

D. O'Shea,
B.E., M.I.Mech.E., C.Eng., F.I.E.I.



ELECTRICITY SUPPLY BOARD
BORD SOLÁTHAIR AN LEICTREACHAIS

Information 1986

Printed in Ireland by McBrinn & Ryan Ltd.
Designed and produced by Public Affairs, E.S.B.