



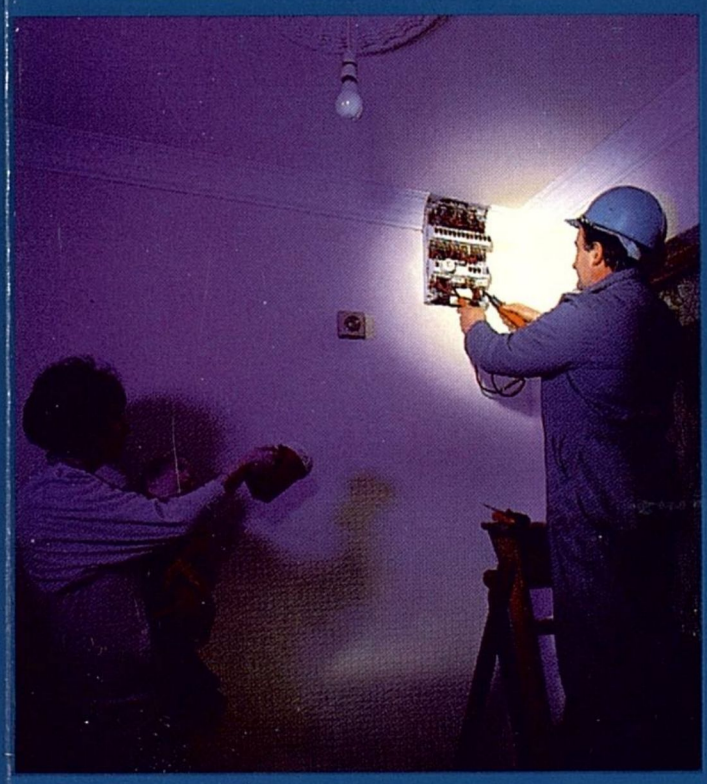




ELECTRICITY SUPPLY BOARD
BORD SOLÁTHAIR AN LEICTREACHAIS

Annual Report for year ended 31st December 1988

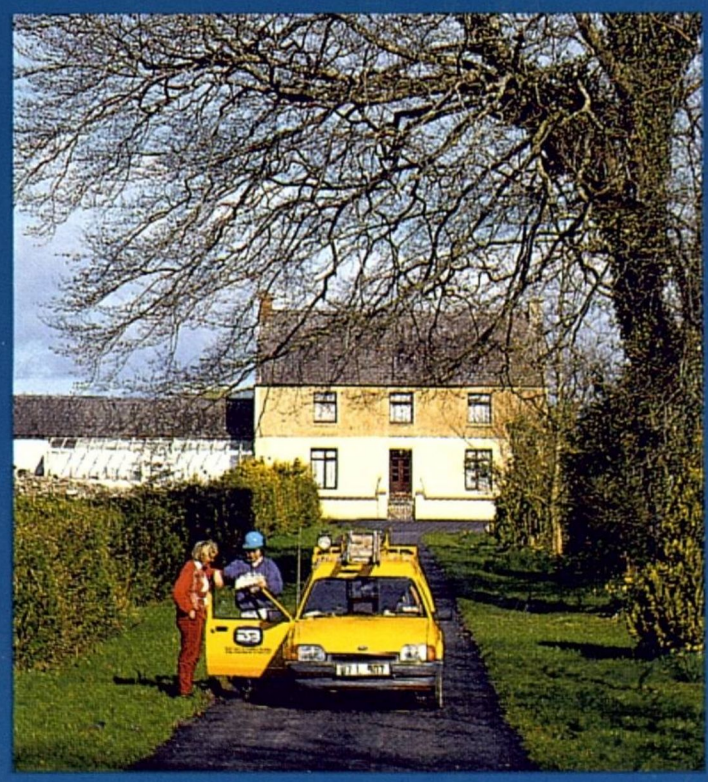


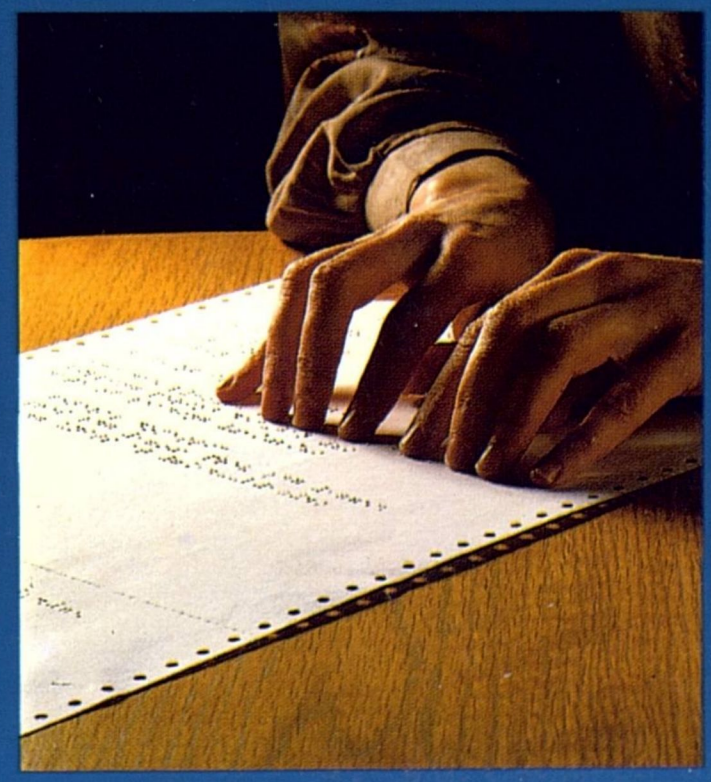












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1992

ESB

ESB INTERNATIONAL

NCB IRELAND

RECORDS 28.6.89.



ESB transporter on route for the launch of "NCB Ireland".

Annual Report for year ending 31 December 1988

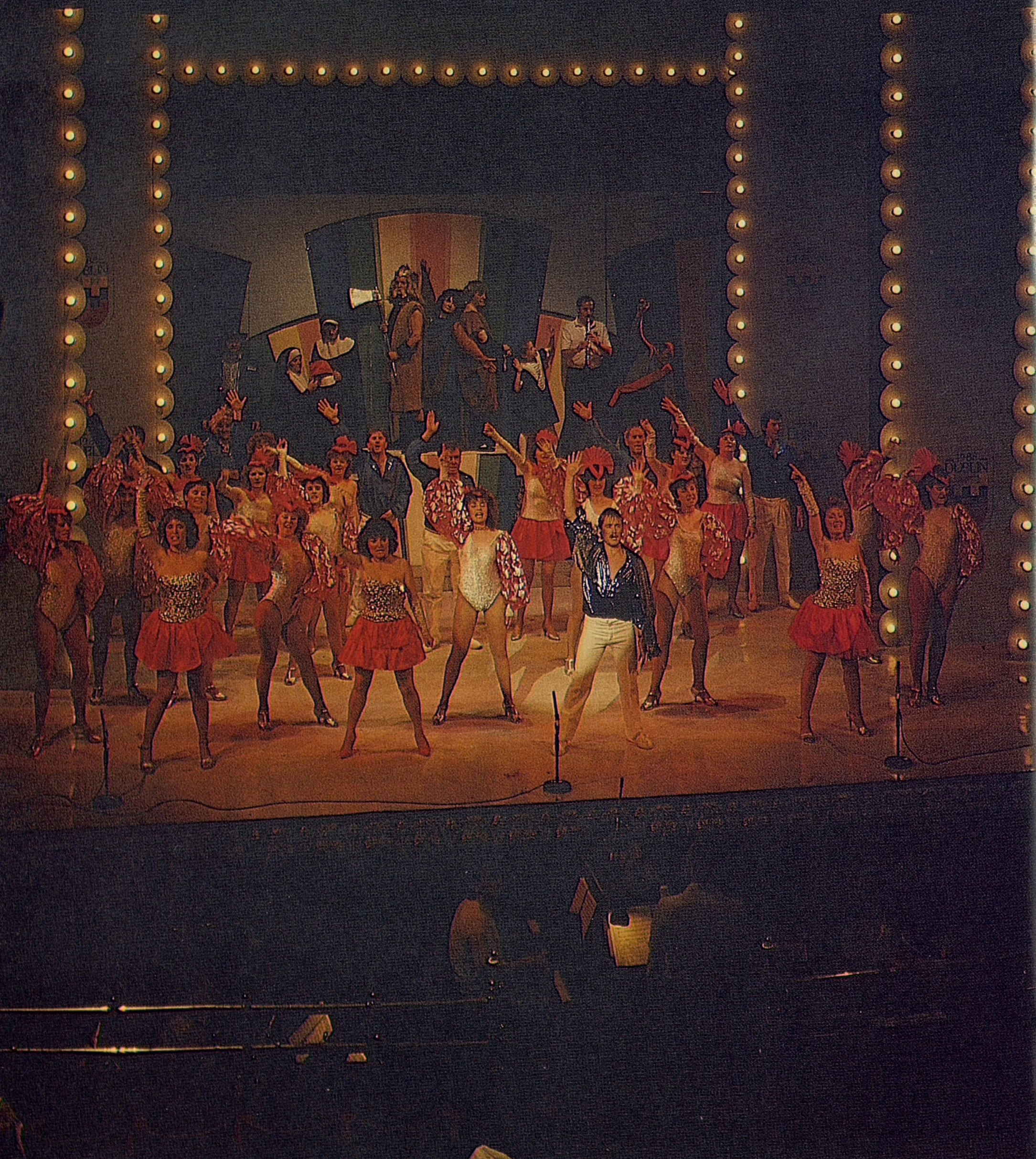
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◄ *Ireland's entry in the Whitbread Round the World Race, 'NCB Ireland' from a painting by Brian Byrnes.*

Pl. 6528

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



To the Minister for Energy

In accordance with the provisions of the Electricity Supply Acts of 1927/1988 the Board presents its Annual Report and Accounts for the 12 months ended 31st December, 1988.

REVIEW OF THE YEAR

For ESB 1988 was a good year. Most of the significant elements in the cost of electricity were in our favour. As a result the Board was able to reduce electricity prices by 4.76% from March 1988. There have now been price reductions in each of the past four years, leaving Irish electricity prices well below average prices in Europe. The 1988 price reduction reduced income by £28m in the year. This loss of income was offset by a fall in fuel prices and interest rates, a weak US dollar and by internal cost reduction programmes, to yield a modest surplus of £5.4m. There were several changes arising from a review of accounting and financial policies during the year. There is a new format of Annual Accounts this year which complies with the 1986 Companies Act.

After a sluggish start to the year the demand for electricity picked up and the year finished with a 2.7% growth. The principal contributor in this regard was the industrial demand at 4.0%, followed by a 2.5% increase in the commercial sector. The increase of only 1.6% in domestic demand has many explanations, deriving from the fact that new electrical appliances are more efficient, there is less house building and there is more competition.

ESB now has a flexibility which it never had before in the use of fuels to generate electricity. It was very welcome during the year to have a significant allocation of natural gas guaranteed into the 1990s as a result of the agreement between the Government and Marathon. At existing prices coal is by far the cheapest fuel for electricity generation. Gas and oil are about 35% more expensive and peat, which still accounts for 17% of generation, is nearly three times the cost of coal.

At the growth rates forecast at present no addition to generating plant is needed before the mid-1990s. Indeed the objective is to extend this date beyond the year 2000 thereby deferring further requirements for major capital expenditure. The key to this is significant improvement in the availability of plant; extra investment in operation, maintenance and training is being made to achieve this objective.

Throughout ESB, from power station to local shop, there is total staff commitment to giving our customers a service which is prompt, efficient and courteous. Our staff have co-operated with new systems, modern technology, better communications, training, organisational change, and many other innovations such as lunchtime and Saturday opening to ensure that ESB can compare favourably with any electricity company in the world for quality of service and value for money.

ESB is a major contributor to the national economy and in turn it has a vital dependency on the well-being of Ireland. The many economic forecasts of strong industrial and commercial activity in 1989 and beyond are therefore very positive for ESB. Through its network of service centres and marketing personnel ESB is in touch with industrial and commercial life throughout the country. The feedback from these sources supports the encouraging economic forecasts and indicates a high level of optimism and the intention of many businesses to expand. While it may not be generally realised, Irish electricity is in competition with that of other European countries because of the mobility of new and existing industrial and commercial businesses. The emergence of more open markets in Europe over the next few years will

◄ *The finale of ESB Musical and Dramatic Society's award winning show 'Baile Atha Cliath to the future'.*

make this international competition even more direct. Stability in Irish electricity prices is a significant competitive factor for Ireland and this in turn is supported by the strength of the Irish pound and by the current low levels of Irish inflation and interest rates. This interdependency of all sectors of the economy is well expressed in the Irish proverb "Ar scáth a chéile a mhaireann na daoine".

Through its subsidiary company, ESB International, the Board is pleased to be associated with the Sail Ireland project which has as its primary objective the winning of the 1989/90 Whitbread Round the World Race with a yacht designed and built in Ireland. Our staff from Central Stores transported this massive boat to display it all around Ireland and the Board appreciates their contribution to a national effort. The project is an exciting challenge which will bring the reality of Ireland as a hi-tech, competitive country to the notice of the world. We wish it every success.

The biggest contribution which ESB can make to the competitiveness of Ireland in the advent of 1992 conditions is the provision of a price competitive high-quality electricity service. This is focused through annual business plans in every sector of the company. The principal targets are:

- **Not to seek any price increase before 1991 and where possible to hold electricity prices at their present level up to 1992.** Electricity prices are now at their lowest-ever level in real terms. To hold them at present levels is a very difficult target and it will require further internal cost reduction and stability in external cost factors which are now beginning to show adverse trends. A major debt re-structuring programme was implemented last year and continuation of this is crucial. There is active management of risks arising from interest rate and currency fluctuations.
- **To reduce the level of debt.** After the initial reduction in 1987 the level of debt was again reduced in 1988. However, at £1139m or 65% of net assets it is very high by international standards. Interest and currency costs alone amount to 17% of electricity prices and hence price stability requires a steady reduction in the debt level.
- **To achieve a long respite from major capital investment.** This requires optimum utilisation of all plant through reduction in overhaul times and avoidance of breakdowns.
- **To diversify into new activities.** The enactment of legislation during 1988 has enabled the Board to embark on a wide range of new activities. ESB is now active in consultancy services throughout the world, in fish farming in Ireland and in financial services at home and abroad. The Board is also taking advantage of suitable opportunities in industrial and commercial projects which have the potential to create new employment in Ireland.
- **To promote efficiency and quality** in all sectors of the economy through the development of new and better uses for electricity.

The Board looks forward optimistically to the future. The portents all over the country support having a positive outlook and fostering a spirit of commitment and enterprise within the company. All of this is possible because of the skill and enthusiasm of an excellent staff for whom being part of ESB is always a stimulus to giving of their best. This was typically exemplified last year by the achievement of the ESB Musical and Dramatic Society in winning the All-Ireland John Player Tops competition with a performance which was highly acclaimed. The Board wishes to express to them and to all the staff its thanks and appreciation of their services.

THE BOARD

The following were the members of the Board at 31st. December, 1988.

C. T. G. DILLON,
Chairman (17)
W. CREMINS (17)
BETTY DILLON (11)
S. GERAGHTY (17)
D. HOLLAND (12)
P.J. KEVANS (9)
J. LaCUMBRE (15)
K. LYNCH (13)
W. McCANN (14)
C. McCARTHY (3)
(Warrant expired 30th. April, 1988)
P.J. MORIARTY,
Chief Executive (17)
J. WRYNN (12)

Mr. Colm McCarthy completed his term of office on the 30th. April, 1988 and the Board wishes to record its appreciation of his services.

There were 17 separate meetings of the Board during the year ended 31st December, 1988. The numbers in brackets opposite each name are the number of meetings attended by each Board Member.

This report was approved by the Board at its meeting on 4th. April, 1989 for submission to the Minister for Energy.

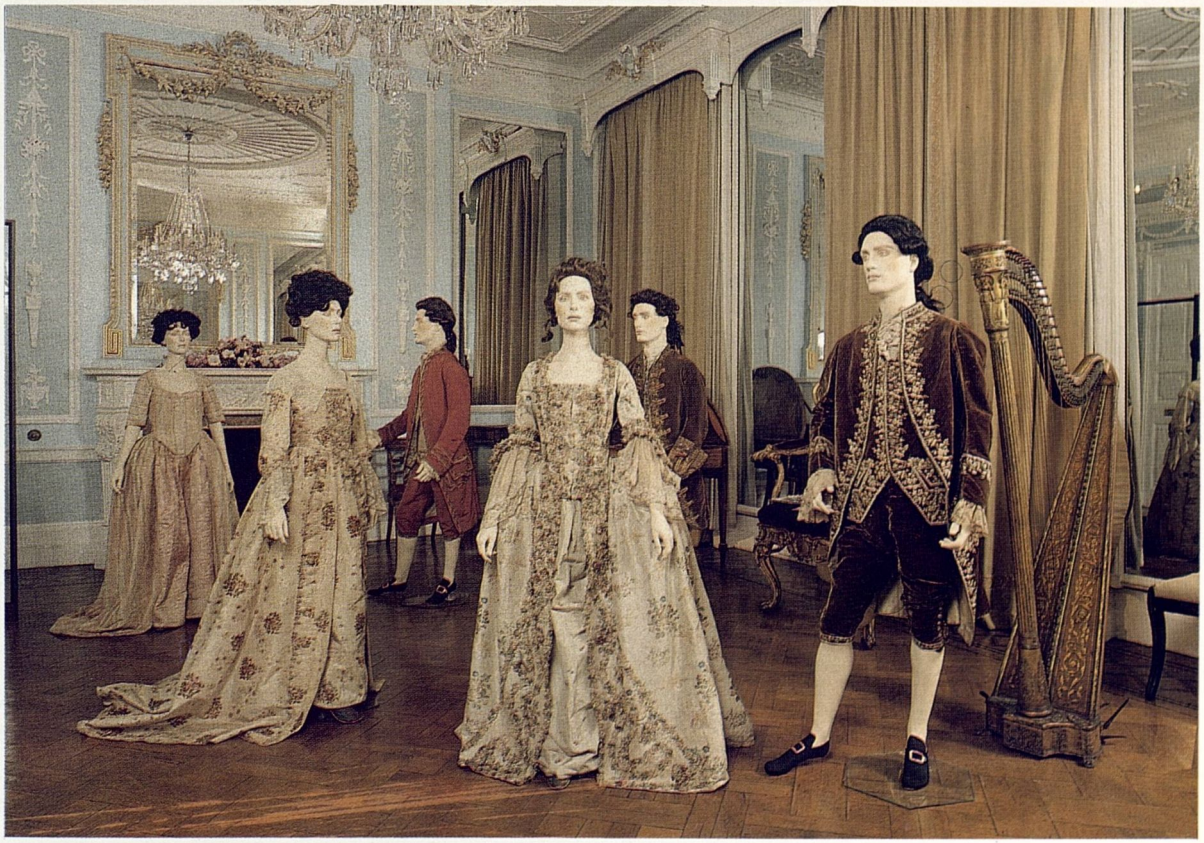
Signed:

CHARLES T.G. DILLON, *Chairman*

P.J. MORIARTY, *Chief Executive*

J.F. WILLIAMS, *Secretary*

A feature of the 'Life in the 18th Century' exhibition at ESB restored Georgian house, 39 Merrion Square.



BOARD MEMBERS

C.T.G. DILLON, Chairman
W. CREMINS
BETTY DILLON
S. GERAGHTY
D. HOLLAND
P. J. KEVANS
J. LaCUMBRE
K. LYNCH
W. McCANN
P.J. MORIARTY, Chief Executive
J. WRYNN

DIRECTORS

Personnel and Public Affairs
L. S. CANNING

Generation and Transmission Operations
A. G. KELLY

Corporate Services
K. O'BRIEN

Customer Operations
K. O'HARA

Finance
D. J. MORAN

Managing Director, ESB International
M. HAYDEN

Chief Operations Officer
J. A. DUFFY

Secretary
J. F. WILLIAMS

Accounts for year ended 31 December 1988

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Profit and Loss Account

Year ended 31 December 1988

	Notes	1988 £000's	1987 £000's
Turnover	1	**756,011**	778,074
Operating Costs*	3	**(615,231)**	(608,932)
Net Interest Cost	2	**(99,254)**	(103,564)
Operating Surplus	1	**41,526**	65,578
Provision for Repayment of Borrowings* (See Policy Note 1.)		**(36,113)**	(73,192)
		5,413	(7,614)
Exceptional Item	15	**—**	2,075
Surplus/(Deficit) for Period		**5,413**	(5,539)
Deficit from Previous Period		**(71,285)**	(65,746)
Deficit to Next Period		**(£65,872)**	(£71,285)

*The 1987 "Provision for Repayment of Borrowings" includes a provision for the effect of Currency Movements on Borrowings which is provided for under Operating Costs in 1988.

Balance Sheet

as at 31 December 1988

	Notes		1988 £000's		1987 £000's
Assets Employed:					
Fixed Assets:—					
: Tangible Assets	5		**1,545,649**		1,535,265
: Financial Assets	6		**48,427**		58,307
			1,594,076		1,593,572
Current Assets:—					
: Inventories	7	**84,907**		89,732	
: Debtors	8	**194,122**		193,246	
: Investments	9	**1,078**		2,707	
: Cash at bank and in hand		**8,903**		9,626	
			289,010		295,311
Creditors — Amounts falling due within one year	10		**(286,801)**		(342,899)
Net Current Assets/(Liabilities)			**2,209**		(47,588)
Total Assets less Current Liabilities			**1,596,285**		1,545,984
Creditors — Amounts falling due after one year	11		**(1,007,712)**		(1,011,607)
Net Assets			**£588,573**		£534,377
Financed By:					
Reserves:—					
: Sinking Fund for Repayment of Borrowings	12		**49,762**		59,977
: Other Reserves	13		**604,683**		545,685
: Profit and Loss Account			**(65,872)**		(71,285)
			£588,573		£534,377

Signed: Charles T. G. Dillon, *Chairman*

Signed: P. J. Moriarty, *Chief Executive*

D. J. Moran, *Director, Finance*

4 April 1989

Statement of Source and Application of Funds

Year ended 31 December 1988

	Notes	1988 £000's	1987 £000's
Source of Funds:-			
Net Funds Generated by Operations	see note below	**126,428**	133,407
Creditors falling due after one year (excluding Long Term Borrowings)	11	**10,292**	—
New Borrowings (net of Discount on ESB Stock Issue — Note 13 — £3,180)	11	**213,463**	73,300
Interest on Sinking Fund	12	**8,249**	10,836
Adjustment for currency changes allocated against Provision for Currency Movements (charged against Repaid Reserves in 1987)	11	**14,326**	—
Non-Repayable Supply Contributions	13	**9,550**	11,610
Net Proceeds of Disposal of Tangible Fixed Assets	—	**3,149**	1,772
Credits on Stock Cancellations	12	**43**	—
Net Decrease in Financial Assets (Sinking Fund Investments)	6	**9,880**	—
		395,380	230,925
Application of Funds:-			
Purchase of Tangible Fixed Assets	5	**87,567**	93,365
Net Increase in Financial Assets (Sinking Fund Investments)	6	**—**	424
Redemption of Borrowings	11	**305,124**	161,240
Payment of Premium on ESB Premium Stock	12	**3,412**	—
		396,103	255,029
Net Outflow of Funds		**(723)**	(24,104)
Movement in Net Liquid Funds:-			
Decrease in Cash at Bank and in Hand		**(£723)**	(£24,104)
Note:			
Funds generated by Operations — Surplus/(Deficit) on ordinary activities	P&L Account	**5,413**	(5,539)
Add/(deduct) items not involving cash flow —			
: Depreciation	5	**75,538**	75,729
: Profit on Disposal of Tangible Fixed Assets	—	**(1,504)**	(37)
: Provision for Repayment of Borrowings	12	**36,113**	73,192
: Provision for Premium on ESB Stocks	12	**1,420**	1,702
(Absorbed)/Released by Working Capital —			
: Inventories	7	**4,825**	3,311
: Debtors	8	**(876)**	(2,041)
: Creditors falling due within one year (excl. current element of Long Term Borrowings)	10	**3,870**	(13,650)
: Investments	9	**1,629**	740
		126,428	133,407

Value Added Statement

Year ended 31 December 1988

	Notes		1988 £000's		1987 £000's
Sources of Income:-					
Electricity Trading	1	**712,710**		738,476	
Appliance and Contracts Trading	1	**29,722**		26,686	
External Activities	1	**10,681**		10,101	
Fisheries — Salmara	1	**2,898**		2,811	
Insurance Claim Settlement	P & L	**—**		2,075	
			756,011		780,149
Less Costs of:-					
Fuel	3	**192,286**		218,924	
Materials and Services	3	**135,325**		132,215	
Depreciation of Assets	3	**75,538**		75,729	
			403,149		426,868
Value Added			**£352,862**		£353,281
Distribution of Value Added:-					
Employees — Payroll	3		**191,922**		182,064
Lenders					
— Interest	P & L	**99,254**		103,564	
— Provision for Repayment of Borrowings	P & L	**36,113**		73,192	
— Provision for Currency Movement on Borrowings	3	**20,160**		—	
			155,527		176,756
Reduction/(Increase) in Deficit brought forward			**5,413**		(5,539)
			£352,862		£353,281

ACCOUNTING POLICIES

1. BASIS OF ACCOUNTING:

The financial statements have been prepared under the Historical Cost Convention and are in accordance with Standard Accounting Practice; however, the following treatment is considered appropriate to a public utility and is consistent with the requirements of the Electricity (Supply) Acts, 1927-1988, which require the Board after providing for repayment of borrowings, to break even taking one year with another.

Amounts are calculated and charged in the Profit and Loss Account each year so as to set aside such sums as are considered proper for the repayment of borrowings, together with the effect of any currency movements thereon. The amounts are reviewed periodically and presently comprise:

(a) A provision for repayment of borrowings which is included in the Profit and Loss Account and consists of:-

: An amount for repayment of ESB stock issues in accordance with contractual obligations.

: An amount for repayment of other borrowings calculated at 3% of their Irish Pound value as at the previous year end.

The provision for repayment of borrowings is allocated to a sinking fund reserve for the repayment of borrowings.

Interest earned on sinking fund investments is credited directly to the sinking fund reserve.

(b) A provision for the effect of exchange rate differences on borrowings which is included in the Profit and Loss Account under Operating Costs and is calculated on a stabilised basis so as to account for them in line with the repayment profile.

Foreign currency borrowings and related hedging contracts are translated at exchange rates ruling at the year end, and differences, including those realised during the year, are allocated against the above provision.

2. NON-REPAYABLE SUPPLY CONTRIBUTIONS:

Non-repayable supply contributions from consumers towards the cost of providing or upgrading electricity supply which are levied in order to provide permanent capital are credited directly to capital reserves.

3. TANGIBLE FIXED ASSETS AND DEPRECIATION:

Tangible fixed assets are stated at cost. Cost includes prime cost, overheads and interest during construction. Tangible fixed assets include land (£24.9m.) most of which is held freehold and is not depreciated.

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 all its tangible fixed 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.

4. FINANCE LEASES:

Leases entered into prior to 1988 are not capitalised and payments made under such leases are charged to the Profit and Loss Account as incurred. The capital element outstanding at 31st. December, 1988 in respect of such leases was £11.4m.

From 1988, the cost of assets acquired under finance leases is included in tangible fixed assets. Depreciation is provided at rates designed to recover this cost over the shorter of the allotted lifespans of the assets and the period of the leases.

The capital element of future rentals is treated as a liability and the interest is charged to the Profit and Loss Account over the period of the leases in proportion to the balances outstanding.

5. 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.

Provision is made for obsolete, slow moving or defective items where appropriate.

6. FINANCIAL FIXED ASSETS:

Financial fixed assets (Sinking Fund Investments) are shown at cost. Provisions for temporary fluctuations in value are not made unless considered material.

7. HIRE PURCHASE SALES:

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.

8. TAXATION:

The Board is liable for Corporation Tax at the reduced rate applicable to manufacturing companies. Because of large 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, 1988 are estimated at £883m.). The potential tax liability deferred as a consequence of accelerated capital allowances is estimated at £54m. (31st. December, 1987 — £33m.).

9. FUEL COMMITMENTS:

It is the Board's policy to hedge exchange rates applicable to estimated future commitments for fuel by means of forward currency contracts. Profits or losses arising on the forward currency contracts are accounted for in the financial period in which the fuel is purchased. Accordingly, no account is taken of profits or losses arising on such forward exchange rate contracts until that time.

10. INVESTMENT IN SUBSIDIARIES:

The Board incorporated certain subsidiary companies for ancillary activities, none of which commenced trading in their own right before 31st. December, 1988 except F.T.I. plc.: Cognisance has not been taken in the Financial Statements of the results of the latter (which commenced trading in the last quarter) as they are not material.

11. SUPERANNUATION SCHEME:

The Board operates a defined benefit scheme for its established employees which is externally funded. Pension costs and liabilities are assessed in accordance with the advice of professionally qualified actuaries. The date of the most recent valuation is 31st. March, 1987. Actuarial valuations are advised to members of the scheme but are not available for public inspection.

NOTES ON THE ACCOUNTS
Year ended 31 December 1988

1. TURNOVER AND RESULTS — £000's
(before Provision for Loan Repayment)

	Electricity Trading	Appliance & Contracts Trading	Salmara	Fisheries Conservation	External Activities	1988 Total	1987 Total
Turnover	712,710	29,722	2,898	—	10,681	756,011	778,074
Operating Surplus	40,354	1,353	510	(834)	143	41,526	65,578

All Turnover arises in Ireland other than External Activities £10.343m. (£10.057m. in 1987) and Salmara £0.224m. (£0.930m. in 1987) which arise overseas.

2. NET INTEREST COST — £000's

		1988		1987
: Total Interest Payable				
— On loans repayable within 5 years	48,975		53,307	
— On other loans	55,799		58,894	
		104,774		112,201
: Provision for Premium on ESB Stocks				
— On loans repayable within 5 years		1,420		1,702
: Interest Receivable*		(4,563)		(4,759)
		101,631		109,144
Less				
: Amount allocated to Capital Work		(2,377)		(5,580)
		99,254		103,564

*Included in interest receivable is an amount of £0.205m. (£0.340m. in 1987) in respect of listed investments.

3. OPERATING SURPLUS — £000's

	1988	1987
Operating Costs include:—		
Fuel	192,286	218,924
Payroll	191,922	182,064
Depreciation	75,538	75,729
Provision for Currency Movements on Borrowings (*Previously included as part of Provision for Repayment of Borrowings charged to the Profit and Loss Account)	20,160	—*
Materials/Others**	135,325	132,215
	615,231	608,932
**Included under Material/Others are the following:-		
Charges payable under finance leases	10,802	12,155
Board Members' Fees (including remuneration of Chairman)	59	56
Audit fee	85	77
Bad Debts	3,270	2,647
Expenses on New Borrowings	85	832

4. EMPLOYEES

	1988	1987
: Average number of employees in year		
Total Employment	**11,208**	11,629
Operation/Administrative	**8,807**	8,977
Capital Construction	**1,981**	2,200
Consultancy/Secondment	**123**	133
Apprentices	**297**	319
: **Payroll Costs in year**	**£m**	£m
Total Payroll Costs	**223**	223
Pay (Salaries/Wages)	**186**	185
Social Welfare Costs (PRSI)	**4**	4
Pension Costs	**20**	19
Other Payroll Costs	**13**	15

5. TANGIBLE FIXED ASSETS AND DEPRECIATION — £000's

Tangible Fixed Assets	Land and Buildings	Plant and Machinery	Total Assets in Commission	Payments on Account and Assets in course of construction	1988 Total	1987 Total
Balance at start of year	**450,520**	**1,599,137**	**2,049,657**	**38,871**	**2,088,528**	2,001,090
Movements during year:						
Additions/Transfers	**8,322**	**79,884**	**88,206**	**(639)**	**87,567**	93,365
Retirements/Disposals	**(876)**	**(8,100)**	**(8,976)**	**—**	**(8,976)**	(5,927)
Balance at end of year	**457,966**	**1,670,921**	**2,128,887**	**38,232**	**2,167,119**	2,088,528
Depreciation						
Balance at start of year	**98,974**	**454,289**	**553,263**	**—**	**553,263**	481,726
Movements during year:						
Charge	**12,706**	**62,832**	**75,538**	**—**	**75,538**	75,729
Retirements/Disposals	**(240)**	**(7,091)**	**(7,331)**	**—**	**(7,331)**	(4,192)
Balance at end of year	**111,440**	**510,030**	**621,470**	**—**	**621,470**	553,263
Net Book Value at 31st. December	**346,526**	**1,160,891**	**1,507,417**	**38,232**	**1,545,649**	1,535,265

The net book value of tangible fixed assets includes an amount of £13.440m. in respect of assets held under finance leases. Depreciation charged on such assets during the year amounted to £0.160m.

6. FINANCIAL FIXED ASSETS HELD FOR SINKING FUND PURPOSES — £000's

Cost	Listed	Bank Accounts	1988 Total	1987 Total
At start of year	**42,525**	**15,782**	**58,307**	57,883
Movement	**(6,868)**	**(3,012)**	**(9,880)**	424
At end of year	**35,657**	**12,770**	**48,427**	58,307
Market Value				
At end of year (incl. Bank Accounts)			**62,609**	69,619

7. INVENTORIES — £000's

	1988	1987
Fuel	**41,482**	50,601
Goods for resale (Appliances)	**4,264**	3,597
Plant/Network Stocks, Miscellaneous Spares and Sundries	**39,161**	35,534
	84,907	89,732

8. DEBTORS — £000's

	1988	1987
Electricity Debtors — billed	**53,811**	46,844
— unbilled	**77,782**	86,365
Net Investment in Hire Purchase Contracts (of which £11.595m. falls due after one year — £10.490m. in 1987)	**25,595**	22,790
Other Debtors	**36,934**	37,247
	194,122	193,246

9. CURRENT ASSET INVESTMENTS — £000's

	1988	1987
Listed	**1,078**	2,707
Market Value of Listed Investments	**1,208**	2,788

10. CREDITORS — AMOUNTS FALLING DUE WITHIN ONE YEAR — £000's

	1988	1987
Long Term Borrowings — see Note 11	**141,579**	201,547
Bank Overdrafts	**339**	14,463
Other Borrowings	**13,384**	18,731
Progress Payments on Work in Progress	**2,672**	2,504
Trade Creditors	**43,414**	51,739
Finance Leases — See Note 11	**2,482**	—
Other Creditors (incl. tax and social welfare)	**16,953**	11,306
Accruals and Deferred Income	**46,845**	20,521
Accrued Interest on Borrowings	**21,772**	22,088
Provision for Currency Movements on Borrowings*	**(2,639)**	—
	286,801	342,899
Tax and social welfare included in Other Creditors:		
PAYE	**4,413**	4,577
VAT	**5,712**	—
	10,125	4,577
Social welfare (PRSI)	**829**	789
	10,954	5,366
*Provision for Currency Movements on Borrowings:		
Transfer from Profit and Loss Account	**20,160**	—
Utilised in year	**(22,799)**	—
	(2,639)	—

11. CREDITORS — AMOUNTS FALLING DUE AFTER ONE YEAR — £000's

	1988	1987
Long Term Borrowings:		
Balance at start of year	**1,213,154**	1,302,766
Movements during year:		
New Borrowings	**216,643**	73,300
Adjustment for Currency Changes	**14,326**	(1,672)
Repayments	**(305,124)**	(161,240)
Total Long Term Borrowings (£911.720m. of the above Borrowings is guaranteed by the State — £1,148.433m. in 1987)	**1,138,999**	1,213,154
Repayment Profile:		
— Repayable before five years	**407,308**	498,013
— Repayable after five years	**731,691**	715,141
	1,138,999	1,213,154
Less		
Amount included in Creditors falling due within one year (Note 10)	**141,579**	201,547
Amount due for repayment after one year	**997,420**	1,011,607
Finance Leases:		
Repayable before five years	**15,037**	—
Less		
Future finance charges	**2,263**	—
	12,774	—
Included in Creditors falling due within one year (Note 10)	**2,482**	
Amounts due for repayment after one year	**10,292**	—
Total Creditors falling due after one year	**1,007,712**	1,011,607

12. SINKING FUND FOR REPAYMENT OF BORROWINGS — £000's

		1988		1987
Balance at start of year		**59,977**		60,255
Movements during year:				
Provision for Repayment of Borrowings		**36,113**		73,192
Provision for premium on ESB Stocks (See Note 2)		**1,420**		1,702
Credits on cancellation of ESB Stocks		**43**		—
Interest income on Sinking Fund investments		**8,249**		10,836
Sinking Fund applied to repay borrowings (See Note 13)	**(52,628)**		(86,008)	
Premium paid on redemption of ESB Stock	**(3,412)**		—	
		(56,040)		(86,008)
Balance at end of year		**49,762**		59,977
Represented by:				
— Sinking Fund Investments		**48,427**		58,307
— Interest accrued		**1,335**		1,670
		49,762		59,977

13. OTHER RESERVES — £000's

	Non-Repayable Supply Contributions	Repaid Capital Reserve	Asset Renewal Reserve	Total Reserves
Balance at start of year	**163,669**	**366,900**	**15,116**	**545,685**
Movements during year:				
Non-Repayable Supply Contributions	**9,550**			**9,550**
Borrowings Repaid ex Sinking Fund		**52,628**		**52,628**
Discount on issue of ESB Stock		**(3,180)**		**(3,180)**
Balance at end of year	**173,219**	**416,348**	**15,116**	**604,683**

14. ACCOUNTING YEAR

Income and Expenditure are aligned on a 52 or 53 week year, as appropriate. 1988 is a 52 week year. (1987 — 53 weeks).

15. CONSEQUENTIAL LOSS INSURANCE CLAIM

The consequential loss claim against the Board's insurers which arose in 1985/86 was partially settled in 1987 — no amount has been included in the Financial Statements for the portion of the claim still under negotiation.

16. CONTRACTUAL CAPITAL COMMITMENTS

At 31st. December, 1988 contractual capital commitments amounted to approximately £17m. (at 31st. December, 1987 — £16m.). In addition, work approved by the Board but not yet contracted for amounted to approximately £41m. (at 31st. December, 1987 — £50m.).

17. COMPARATIVE FIGURES

Where appropriate, previous year's figures are regrouped.

18. APPROVAL OF ACCOUNTS

The Board approved the accounts on 4th. April, 1989.

Auditors' Report

As Auditors appointed by the Minister for Energy, with the consent of the Minister for Finance, we have audited the financial statements of Electricity Supply Board on pages 8 to 18 in accordance with approved auditing standards and have obtained all the information and explanations we considered necessary.

In our opinion, the financial statements give, when read in conjunction with the note on the basis of accounting, a true and fair view of the results and source and application of funds of the Board for the year ended 31 December 1988 and of the state of the Board's affairs as at that date.

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

KPMG Stokes Kennedy Crowley
Chartered Accountants
DUBLIN

4 April 1989

Statistics and Indicators

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ESB Input to Ireland's Economy

	1984/5 £ millions	1985/6 £ millions	1986 (9 mths) £ millions	1987 £ millions	**1988 £ millions**
Fuel: Natural Gas, Peat, Native Coal	210	199	86	117	**119**
Irish Suppliers of Goods and Services including Capital Work	120	97	86	120	**129**
Rates Levy and Local Rates	25	26	20	27	**28**
Payroll Costs including Capital Projects	203	209	163	223	**223**
Interest paid to Irish Lenders & Stockholders	39	50	49	40	**28**
TOTAL	597	581	404	527	**527**

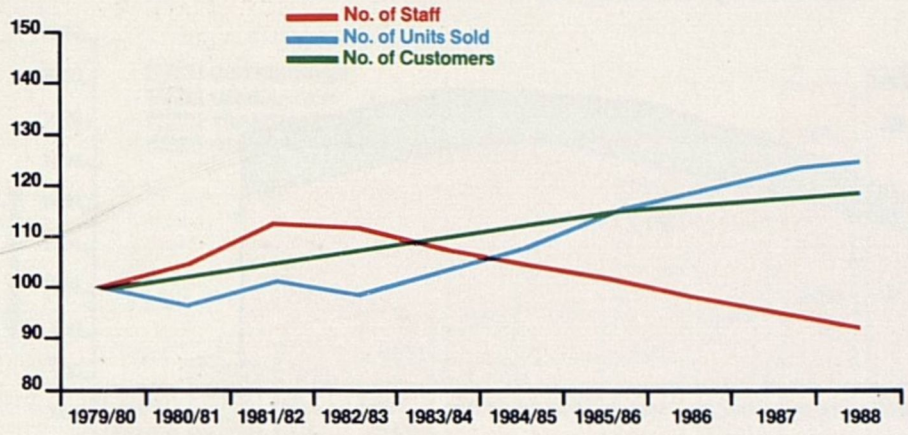
Data Summary

	1987	**1988**
Financial Outcome. (Deficit)/Surplus	(£5m.)	**£5m.**
Income	£780m.	**£756m.**
Assets in Commission (before Depreciation)	£2,050m.	**£2,129m.**
Sales (Million Units)	10,506	**10,616**
Effective Generating Capacity (MW)	4,009	**3,937**
Peak Load (MW)	2,351	**2,313**
Customers	1,221,600	**1,234,957**
Total Employees at year end	11,383	**10,903**
Operations	9,143	**8,882**
New Works	1,802	**1,601**
External Activities and Secondment	134	**137**
Apprentices	304	**283**
Pay	£185m.	**£186m.**
ESB Contribution to Pension Fund, PRSI and Expenses	£38m.	**£37m.**

STAFF

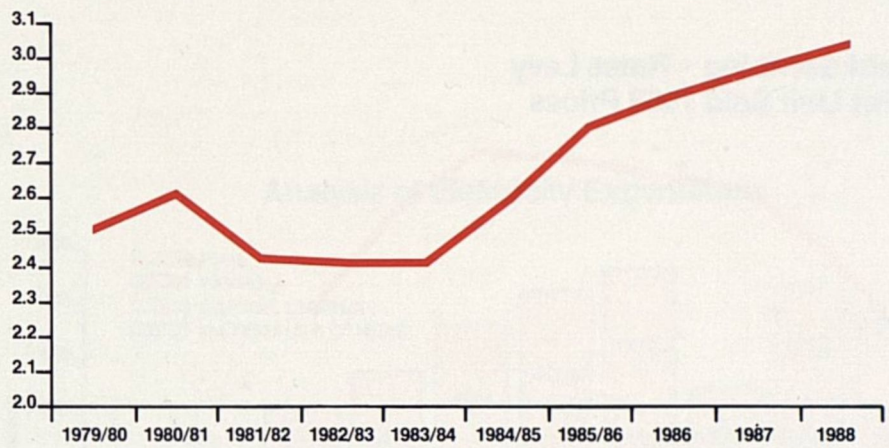
Graph 1

Staff Productivity
Index Base 1979/80 = 100



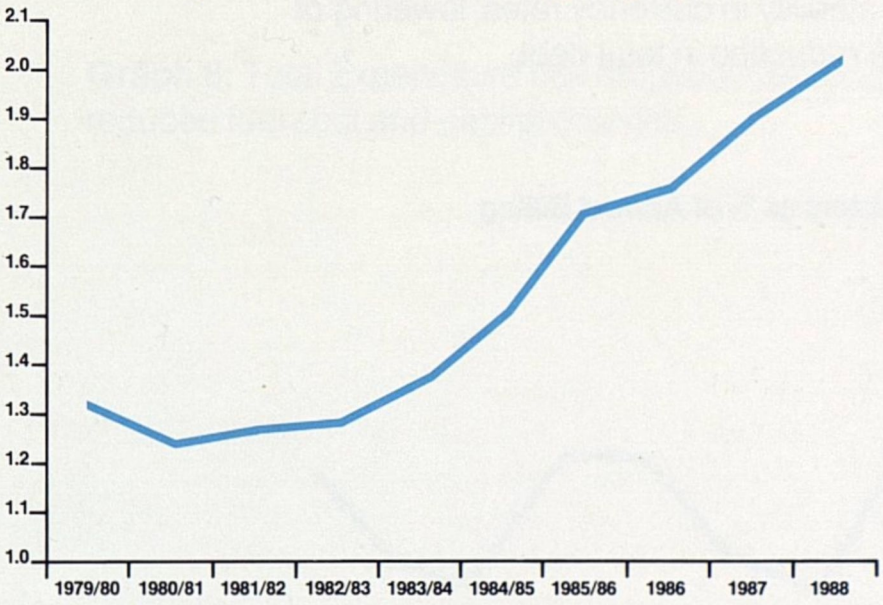
Graph 2

Million kWh sold per Generation/Transmission Employee



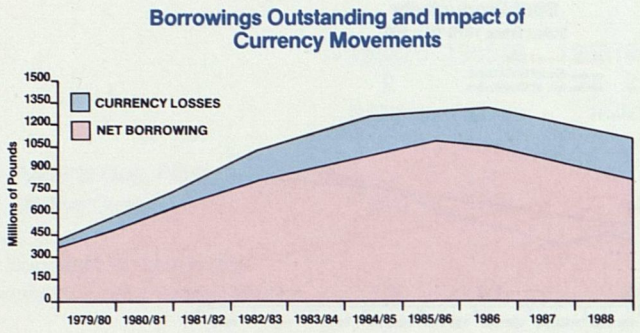
Graph 3

Million kWh Sold per Distribution/Marketing Employee



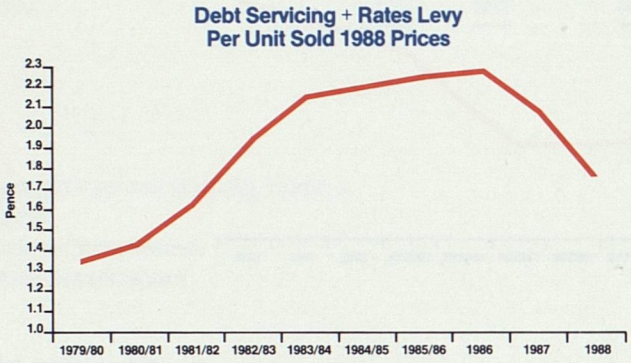
Graphs 1, 2 and **3** show a steady annual increase in productivity over the last 5 years against customer numbers and units of electricity sold.

Graph 4



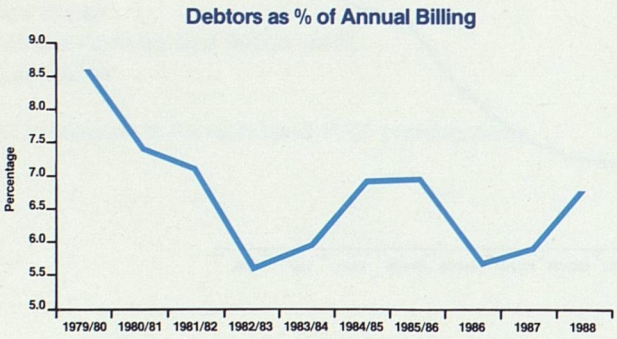
Graph 4 shows the impact of currency movements on total debt. Overall borrowings continue to decrease with the currency loss position remaining constant.

Graph 5



Graph 5: Debt Servicing Costs continue to fall reflecting debt restructuring, stability in currency rates, lowering of interest rates and a reduction in total debt.

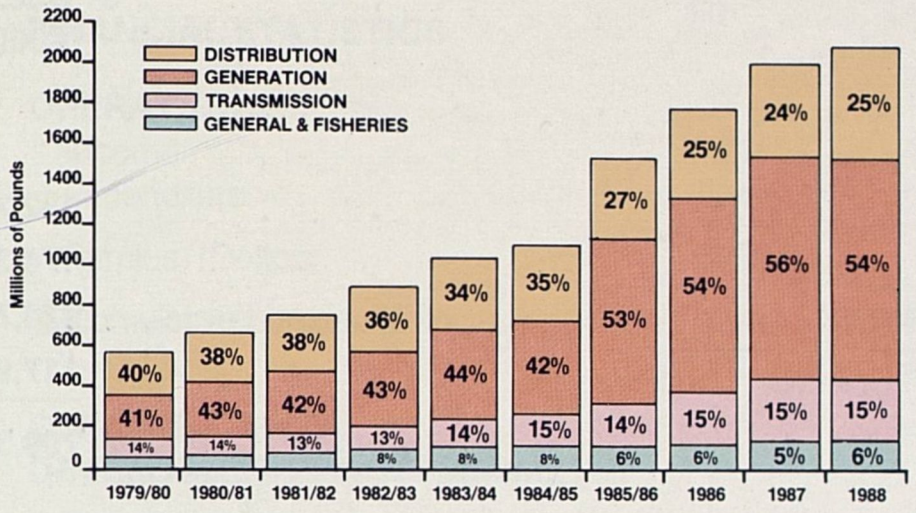
Graph 6



Graph 6: This disimprovement reflects the effect of Industrial Action earlier in the year. The situation has since improved.

Graph 7

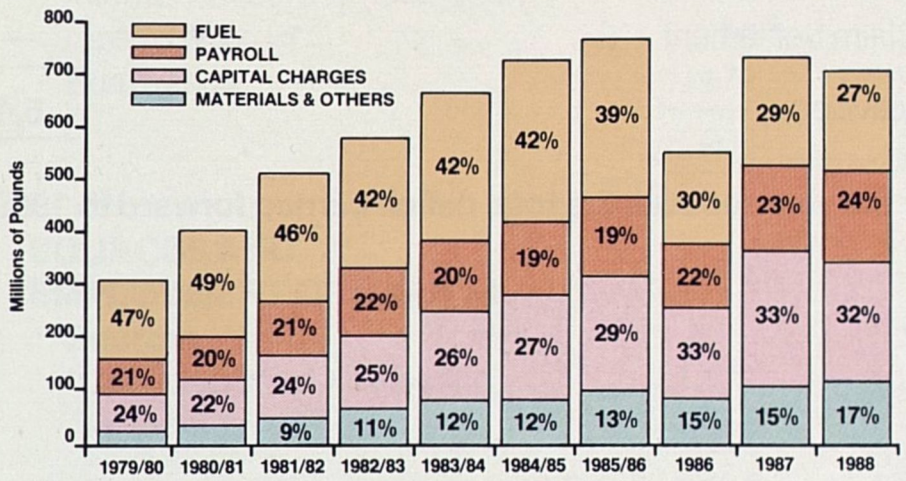
Analysis of Cumulative Investment in Fixed Assets



Graph 7: The rate of growth in investment is declining following completion of the Generation programme.

Graph 8

Analysis of Electricity Expenditure



Graph 8: Total Expenditure has dropped reflecting reduced fuel cost and capital charges.

Summary of Electricity and Trading Figures

	Period Ended 31 Dec. 1988 £000's	Period Ended 31 Dec. 1987 £000's
Electricity		
Expenditure:		
Fuel	**192,286**	218,924
Payroll	**174,314**	167,859
Capital Charges	**224,766**	244,922
Other Costs	**117,937**	115,297
	709,303	747,002
Revenue Income	**712,710**	738,476
Surplus/(Deficit)	**3,407**	(8,526)
Trading etc.		
Appliance & Contracts Result	**1,353**	(29)
External Activities Result	**143**	142
Fisheries — Salmara Result	**510**	799
Insurance Claim Settlement	**—**	2,075
Result for all activities	**5,413**	(5,539)

The result for the year reduces the total deficit carried forward to 1989 to £65.872m.

5 Year Summary — Financial Statistics and Key Ratios

FINANCIAL STATISTICS	1984/85 £m	1985/86 £m	1986 (9 mths) £m	1987 £m	**1988 £m**
OPERATIONS:					
Income	727	791	577	780	**756**
Expenditure	754	799	571	785	**751**
Surplus/(Deficit)	(27)	(8)	6	(5)	**5**
Cumulative Surplus/(Deficit)	(64)	(72)	(66)	(71)	**(66)**
FUNDING CAPITAL DEVELOPMENT PROGRAMME:					
Requirements:					
Capital Exenditure	240	172	100	93	**87**
Working Capital Movement (excl. long-term debt repayable within 12 months)	(32)	79	7	(12)	**(7)**
	208	251	107	81	**80**
Financing:					
Internal Resources (after debt repayment)	36	46	35	8	**—**
Borrowings	172	205	72	73	**80**
	208	251	107	81	**80**
SOURCES AND EMPLOYMENT OF CAPITAL					
Sources					
*Debt Liabilities Outstanding	1,179	1,224	1,242	1,153	**1,103**
Reserves	255	402	441	534	**589**
	1,434	1,626	1,683	1,687	**1,692**
Employment:					
Net Fixed Assets in Commission	739	1,119	1,325	1,496	**1,507**
Capital Work-in-Progress	618	350	194	39	**39**
Net Current Assets (excl. long-term debt repayable within 12 months)	77	157	164	152	**146**
	1,434	1,626	1,683	1,687	**1,692**
*Inclusive of Cumulative Currency Gain/(Loss)	(200)	(119)	(145)	(122)	**(119)**
KEY RATIOS					
Return on Average Net Assets (%)	8.9	10.5	8.6	10.2	**9.5**
Debt/Net Assets (%)	82.0	75.0	74.0	68.0	**65.0**
Current Ratio (Times)	1.4	2.0	2.1	2.1	**2.0**
Interest Cover (Times) (excl. interest Capitalised)	1.5	1.7	1.7	1.7	**1.6**
Foreign/Total Borrowings (%)	72.0	67.0	70.0	71.0	**77.0**
Average Electricity Credit Period (Days from Date Billed)	27.3	30.1	25.6	23.7	**27.7**

Summarised Statement of Borrowings

Summarised Statement

	Balance Outstanding 31 December 1987 £000's	Borrowed during year £000's	Redeemed during year £000's	Adjustment for currency changes £000's	**Balance Outstanding 31 December 1988 £000's**
Irish Pound Borrowings:					
Fixed Rate Facilities	133,658	30,000	54,956	—	**108,702**
Floating Rate Facilities	215,250	1,750	107,000	—	**110,000**
	348,908	31,750	161,956	—	**218,702**
Foreign Currency Borrowings:					
Project Finance	545,350	20,000	37,375	5,714	**533,689**
Fixed Rate Facilities	240,842	32,589	78,861	(2,047)	**192,523**
Floating Rate Facilities	78,054	132,304	26,932	10,659	**194,085**
TOTAL — FOREIGN CURRENCY BORROWINGS	864,246	184,893	143,168	14,326	**920,297**
TOTAL — IRISH POUND BORROWINGS	348,908	31,750	161,956	—	**218,702**
TOTAL — ALL BORROWINGS	1,213,154	216,643	305,124	14,326	**1,138,999**

Currency and Repayment Profile

	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	56,781	154,161	2,947	49,778	263,667	23
European						
Sterling	2,006	25,619	9,880	13,756	51,261	5
Deutsche Marks	23,478	74,526	22,764	1,817	122,585	11
Swiss Francs	14,766	87,156	195,828	9,257	307,007	27
Belgian Francs	2,226	—	—	—	2,226	—
French Francs	1,290	8,118	10,525	8,980	28,913	3
Dutch Guilders	3,352	11,746	11,631	9,577	36,306	3
Luxembourg Francs	1,115	14,233	28,312	5,734	49,394	4
ECU's	468	61,895	20,390	12,370	95,123	8
Others						
U.S. Dollars	8,787	33,258	41,991	3,419	87,455	8
Canadian Dollars	19,513	—	—	—	19,513	2
Japanese Yen	7,747	28,504	20,484	14,342	71,077	6
Miscellaneous	50	1,223	1,781	1,418	4,472	—
	141,579	500,439	366,533	130,448	1,138,999	
Repayment Profile	12%	44%	32%	12%		100%

Where debt swaps apply, Irish pound values are based on currency liability under the swap arrangement.

Detailed Statement of Borrowings

Amount Borrowed £000's	Year(s) of Borrowing	IRISH POUND BORROWINGS:	Balance Outstanding 31 Dec. 1987 £000's	Borrowed during Year £000's	Redeemed during Year £000's	Adjustment for Currency Changes £000's	Balance Outstanding 31 Dec. 1988 £000's
68,450	1928-59	Advances — Minister for Finance	30,369	—	30,369	—	—
16,500	1964-65	Stock — 6% — 1984/89	5,181	—	400	—	4,781
13,000	1966-67	Stock — 7% — 1986/91	4,538	—	350	—	4,188
7,000	1968	Stock — 7.25% — 1988/93	1,571	—	175	—	1,396
9,250	1970	Stock — 9.5% — 1985/90	3,215	—	150	—	3,065
12,000	1972	Stock — 9% — 1992/95	3,497	—	550	—	2,947
16,800	1977	Stock — 13% — 1988	8,214	—	8,214	—	—
12,000	1978	Stock — 13% — 1990/92	8,646	—	400	—	8,246
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	—	700	—	34,300
30,000	1988	Stock — 8.25% — 2003	—	30,000	—	—	30,000
			133,658	30,000	54,956	—	108,702
Floating Rate Facilities:							
30,000*	1981	— Domestic Banks — 1987/92	15,000	—	15,000	—	—
15,000	1982	— Domestic Banks — Note Issue — 1989	13,250	1,750	—	—	15,000
30,000*	1982	— Domestic Banks — 1987/90	15,000	—	15,000	—	—
10,000*	1983	— Domestic Bank — 1987/91	8,000	—	2,000	—	6,000
45,000*	1984	— Domestic Banks — 1988/91	45,000	—	45,000	—	—
25,000*	1984	— Domestic Bank — 1989	25,000	—	—	—	25,000
12,000*	1984	— Domestic Bank — 1992/93	12,000	—	—	—	12,000
10,000	1984	— Domestic Banks — 1990/92	10,000	—	—	—	10,000
10,000*	1984	— Domestic Bank — 1989	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
			215,250	1,750	107,000	—	110,000

Amount Borrowed 000's	Year(s) of Borrowing	FOREIGN CURRENCY BORROWINGS:	Balance Outstanding 31 Dec. 1987 £000's	Borrowed during Year £000's	Redeemed during Year £000's	Adjustment for Currency Changes £000's	Balance Outstanding 31 Dec. 1988 £000's
Project Finance:							
IR£20,000*	1978	— European Investment Bank 9.2% — 1983/98	20,486	—	1,211	1,532	20,807
IR£10,000*	1979	— European Investment Bank 9.35% — 1983/99	11,211	—	593	408	11,026
IR£15,000*	1979	— European Investment Bank 9.45% — 1983/99	17,817	—	1,066	986	17,737
IR£20,000*	1979	— European Investment Bank 9.45% — 1983/99	23,762	—	1,421	1,314	23,655
IR£10,785*	1979	— European Investment Bank 6.86% — 1985/94	10,708	—	1,515	(—) 82	9,111
IR£5,715*	1979	— European Investment Bank 12.0% — 1985/96	6,391	—	246	758	6,903
IR£3,000*	1980	— European Investment Bank 8.75% — 1984/95	3,275	—	354	(—) 69	2,852
IR£20,000*	1980	— European Investment Bank 8.75% — 1985/95	23,400	—	2,529	(—) 488	20,383
IR£30,000*	1981	— European Investment Bank 7.65% — 1986/96	39,638	—	3,728	(—) 1,947	33,963
IR£17,000*	1981	— European Investment Bank 9.3% — 1985/2001	25,849	—	1,345	2,172	26,676
IR£22,000*	1981	— European Investment Bank 10.55% — 1987/2001	31,325	—	1,253	290	30,362
IR£18,000*	1981	— European Investment Bank 14.0% — 1987/2001	21,765	—	747	241	21,259
IR£16,000*	1982	— European Investment Bank 11.375% — 1985/92	12,585	—	2,474	(—) 147	9,964
IR£20,000*	1982	— European Investment Bank 12.0% — 1995/2002	17,333	—	—	1,312	18,645
IR£8,000*	1982	— European Investment Bank 7.0% — 1986/94	9,462	—	1,012	(—) 460	7,990
IR£19,500*	1983	— European Investment Bank 6.4% — 1988/98	22,585	—	918	(—) 1,113	20,554
IR£8,250*	1983	— European Investment Bank 6.5% — 1984/95	7,128	—	753	(—) 348	6,027
IR£6,750*	1983	— European Investment Bank 12.15% — 1989/98	7,222	—	—	12	7,234
IR£14,010*	1983	— European Investment Bank 10.4% — 1989/98	15,969	—	—	(—) 154	15,815
IR£5,000*	1985	— European Investment Bank 9.4% — 1990/2000	5,421	—	—	9	5,430
IR£15,000*	1986	— European Investment Bank 9.0% — 1991/98	16,891	—	—	(—) 163	16,728
IR£11,400*	1986	— European Investment Bank 7.95% — 1990/2001	11,627	—	—	20	11,647
IR£4,300*	1986	— European Investment Bank 9.8% — 1990/2001	4,168	—	—	(—) 15	4,153
IR£4,300*	1986	— European Investment Bank 5.45% — 1990/2001	4,439	—	—	(—) 220	4,219
IR£16,500*	1986	— European Investment Bank 7.7% — 1990/2001	17,015	—	—	(—) 164	16,851
IR£16,790*	1986	— European Investment Bank 7.8% — 1991/2001	16,678	—	—	(—) 240	16,438
IR£20,000*	1987	— European Investment Bank 7.8% — 1990/2001	20,101	—	—	34	20,135
IR£20,000*	1988	— European Investment Bank 4.8% — 1996/2000	—	20,000	—	(—) 457	19,543
US$14,500*	1969-73	— I.B.R.D. Washington 6.5% — 1974/94	8,607	—	758	453	8,302
US$15,000*	1972-77	— I.B.R.D. Washington 7.25% — 1977/88	1,665	—	1,650	(—) 15	—
US$44,388	1981-86	— Export-Import Bank of the United States 8.0% — 1986/98	23,183	—	2,453	2,729	23,459
US$10,840	1981-82	— Export-Import Bank of the United States 8.375% — 1983/91	2,417	—	895	280	1,802
US$23,578	1981-86	— Export-Import Bank of the United States 8.0% — 1988/2000	14,023	—	658	1,665	15,030
F.Fr.376,961	1973-85	— French Banks — 1977/2004	14,613	—	1,931	(—) 209	12,473
Stg.£25,725	1971-86	— United Kingdom Banks/Suppliers — 1975/90	4,869	—	2,257	311	2,923
Sw.Fr.125,565	1981-85	— Swiss Export Agency — 1986/97	51,722	—	5,608	(—) 2,521	43,593
			545,350	20,000	37,375	5,714	533,689

*Multi Currency Facilities (equivalent to amount of indicated currency at drawdown)

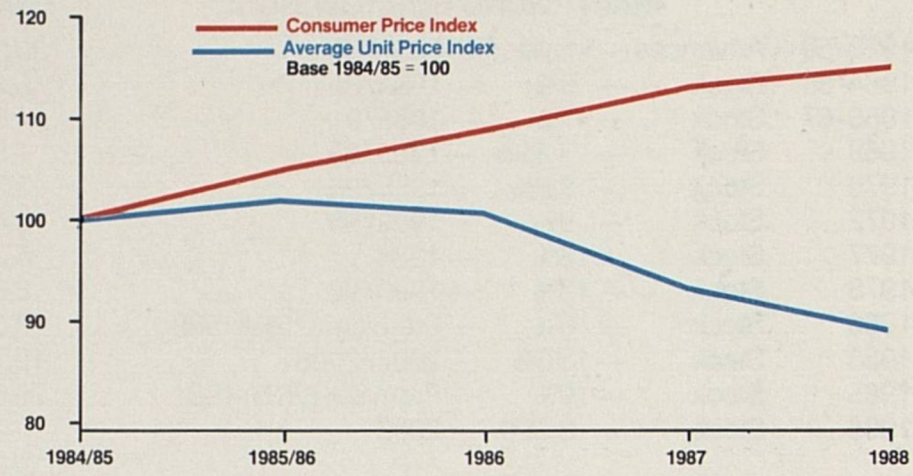
Amount Borrowed 000's	Year(s) of Borrowing	FOREIGN CURRENCY BORROWINGS:	Balance Outstanding 31 Dec. 1987 £000's	Borrowed during Year £000's	Redeemed during Year £000's	Adjustment for Currency Changes £000's	Balance Outstanding 31 Dec. 1988 £000's
Fixed Rate Facilities:							
Registered Notes/Bonds and Bearer Bonds							
US$30,000	1972	— Japanese Banks 7.75% — 1973/92	4,163	—	915	476	3,724
US$12,000	1977	— U.S. Syndicate 9.25% — 1983/92	3,568	—	776	401	3,193
B.Fr.1,000,000	1973-74	— Belgian Banks 8.75% — 1980/89	4,493	—	2,250	(—) 17	2,226
D.M.75,000	1980	— German Bank 8.5% — 1988	28,323	—	28,041	(—) 282	—
D.M.150,000	1979	— Banking Syndicate 9.2% — 1986/91	37,765	—	9,363	(—) 286	28,116
D.M.120,000	1982	— Banking Syndicate 9.75% — 1983/92	22,658	—	4,490	(—) 174	17,994
YEN 5,000,000	1983	— Japanese Banks 5.8% — 1987/92	22,290	—	4,695	1,805	19,400
D.G. 75,000	1983	— Dutch Banks — Note Issue 8.75% — 1988	25,167	—	25,211	44	—
D.M.50,000	1984	— German Bank 9.05% — 1988/93	18,883	—	3,120	(—) 142	15,621
Sw.Fr.50,000	1985	— Swiss Banks 5.37% — 1992	23,304	—	—	(—) 1,156	22,148
Sw.Fr. 110,000	1987	— Swiss Banks 5.0% — 1995	50,228	1,042	—	(—) 2,544	48,726
YEN 3,400,000†	1988	— Japanese Bank 5.5% — 1998	—	17,733	—	(—) 172	17,561
YEN 2,540,000†	1988	— Japanese Bank 5.9% — 1993	—	13,814	—	—	13,814
			240,842	32,589	78,861	(—) 2,047	192,523
Floating Rate Facilities:							
US$20,000*	1980	— Domestic Banks — 1984/88	2,379	—	2,657	278	—
CAN$ 30,000*	1981	— Canadian Bank — 1987/89	9,154	—	4,898	1,320	5,576
CAN$ 25,000*	1982	— Canadian Bank — 1989	11,443	—	—	2,496	13,939
US$ 25,000*†	1984	— Middle East Bank — 1993	14,867	—	—	709	15,576
US$ 15,000*	1985	— Banking Syndicate — 1989/91	8,920	—	9,708	788	—
US$ 15,000*	1985	— Domestic Bank — 1988	8,920	—	9,669	749	—
Stg.£20,000*	1986	— Sterling Acceptance Credit — 1992	22,371	—	—	1,693	24,064
US$ 25,000†	1988	— Middle East Bank — 1993	—	15,576	—	—	15,576
US$ 42,989†	1988	— Banking Syndicate — 1995	—	26,975	—	(—) 397	26,578
DM 135,000†	1988	— Banking Syndicate — 1993	—	50,465	—	212	50,677
Sw.Fr.37,800	1988	— German Bank — 1995	—	16,634	—	110	16,744
US$ 35,000†	1988	— Banking Syndicate — 1995	—	22,654	—	2,701	25,355
			78,054	132,304	26,932	10,659	194,085
TOTAL — FOREIGN CURRENCY BORROWINGS			864,246	184,893	143,168	14,326	920,297
TOTAL — IRISH POUND BORROWINGS			348,908	31,750	161,956	—	218,702
TOTAL — ALL BORROWINGS			1,213,154	216,643	305,124	14,326	1,138,999

*Multi-Currency Facilities (equivalent to amount of indicated currency at drawdown)
†Currency debt swap contracts in place — Revaluations based on currency liability under the swap arrangement.

Graph 9

Total

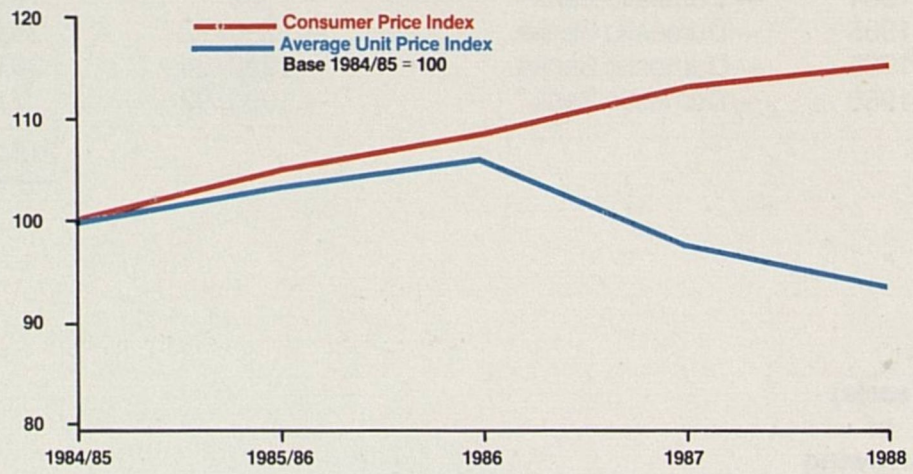
Average Unit Price vs. CPI



Graph 10

Domestic

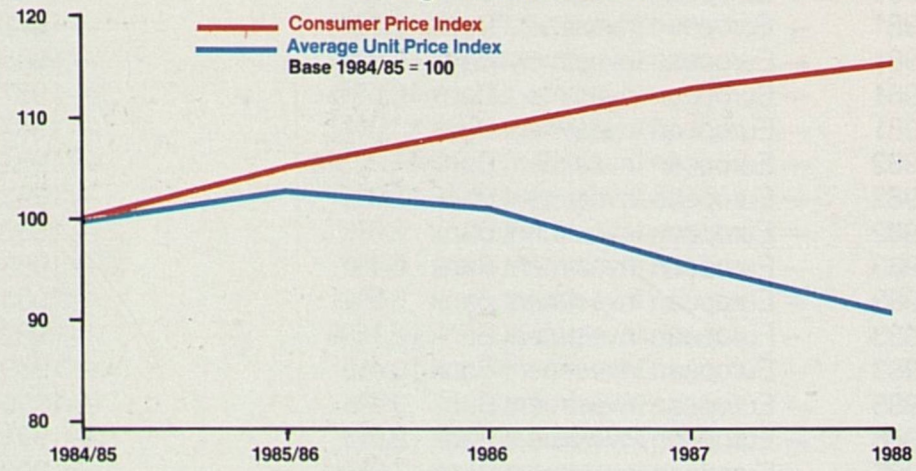
Average Unit Price vs. CPI



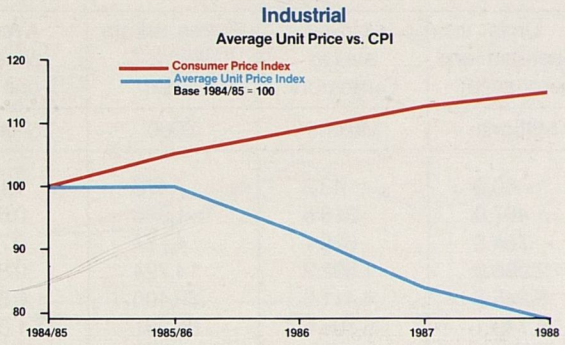
Graph 11

Commercial

Average Unit Price vs. CPI



Graph 12



Graph 9, 10, 11, 12: These graphs show that in all four cases — Domestic, Commercial, Industrial and Total — the average unit price in 1988 is significantly lower than in 1984/85. When inflation in the meantime is taken into consideration, the real price of electricity has fallen by 21% over the period.

Analysis of Units Sold

Class of Supply	**1988 (Millions)**	1987 (Millions)	Increase (Millions)	% Increase
Domestic				
General Supply	**3,966.8**	4,020.9	-54.1	-1.3
Night Rate	**237.3**	209.5	27.8	13.3
	4,204.1	4,230.4	-26.3	-0.6
Commercial				
General Supply	**973.6**	909.7	63.9	7.0
Heating, Cooking & Water Heating	**220.8**	236.2	-15.4	-6.5
Night Space Heating	**182.4**	193.0	-10.6	-5.5
Public Lighting	**133.3**	134.5	-1.2	-0.9
Maximum Demand	**895.6**	859.7	35.9	4.2
Miscellaneous	**60.4**	103.7	-43.3	-41.8
	2,466.1	2,436.8	29.3	1.2
Industrial				
Maximum Demand				
High Tension	**3,075.5**	2,958.2	117.3	4.0
Low Tension	**725.2**	748.6	-23.4	-3.1
Miscellaneous	**144.9**	132.1	12.8	9.7
	3,945.6	3,838.9	106.7	2.8
TOTAL	**10,615.8**	10,506.1	109.7	1.0

Note: 1987 was a 53 week accounting year
1988 was a 52 week accounting year

If the 1988 figures are compared with figures for 52 weeks of 1987, the rate of increase in units sold was 2.7%

Growth of ESB 1930–1988

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
1987	12,491.0	10,506.1	736,441	7.010	1,221,600
1988	12,563.0	10,615.8	707,627	6.666	1,234,957

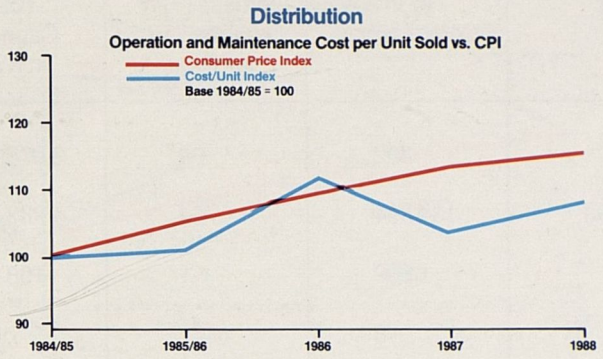
*Excluding Units absorbed by Storage Pumping

Electricity Sales by Sector

(Million Units)

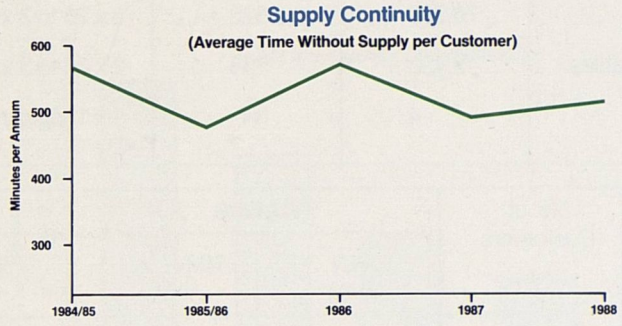
Year	Domestic	Commercial	Industrial	Total
1978/79	3,404	1,624	2,938	7,965
1979/80	3,600	1,722	3,238	8,560
1980/81	3,515	1,774	3,076	8,365
1981/82	3,659	1,887	3,116	8,662
1982/83	3,599	1,911	3,009	8,518
1983/84	3,703	2,002	3,198	8,904
1984/85	3,795	2,074	3,405	9,274
1985/86	4,001	2,234	3,553	9,788
9 mths 1986	2,821	1,635	2,840	7,296
1987	4,230	2,437	3,839	10,506
1988	4,204	2,466	3,946	10,616

Graph 13



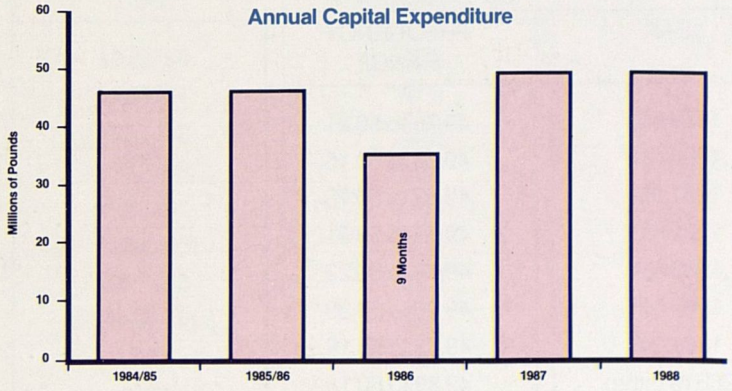
Graph 13: The overall trend in costs remains satisfactory, despite significant repair costs after the severe storms of February and an increased level of network maintenance in 1988.

Graph 14



Graph 14: The long term trend in supply continuity continues to be one of gradual improvement. However, the severe wind storms in the early part of 1988 resulted in a slight disimprovement compared with 1987.

Graph 15



Graph 15: Distribution capital expenditure has stabilised and the likelihood is for a decline over the next few years.

Distribution System at 31 December 1988 (Including Rural Networks)

Transformer Stations	No. in Commission	Increase (+) or Decrease (-) for Year	Total Capacity in KVA	Increase (+) or Decrease (-) for Year in KVA
38 kV	392	+ 4	2,978,100	+ 46,000
10kV (excl. U.R.D.)	134,094	+ 1764	4,283,247	+ 84,880
10kV U.R.D.	1,882	+ 1	108,811	+ 125
5kV	6	Nil	900	Nil

Distribution Lines & Cables	Length km	Increase (+) or Decrease (-) for year km	Description
38 kV Lines	5,652	+ 46	3 x 35 to 3 x 300 sq. mm (Cu & SCA)
38 kV Cables	287	+3	3 x 95 to 3 x 680 sq. mm (Cu & Al)
10 kV Lines	76,788	+522	2 x 25 to 3 x 92 sq. mm (Cu & SCA)
10 kV & 5 kV Cables	3,452	+58	2 x 16 to 3 x 240 sq. mm (Cu & Al)
3.3 kV Cables	4	Nil	3 x 185 sq. mm Cu.

Distribution System Trends — Cumulative Data

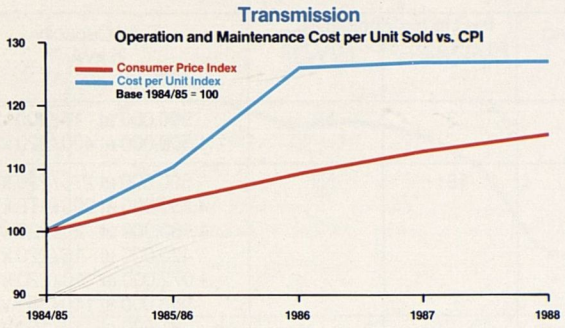
Year	No. of Customers	TRAFOS		NETWORKS (km)	
		38kV (kVA)	10kV/5kV (kVA)	38kV	10kV/5kV/ 3.3kV
1979/80	1,043,428	2,398,900	3,270,000	5,501.5	73,583.7
1980/81	1,070,049	2,523,100	3,369,881	5,566.3	74,344.7
1981/82	1,096,950	2,647,300	3,563,530	5,645.5	75,171.1
1982/83	1,122,461	2,716,700	3,683,911	5,714.7	76,042.3
1983/84	1,145,818	2,792,500	3,843,827	5,807.2	76,850.5
1984/85	1,168,679	2,828,700	3,976,454	5,890.8	77,802.0
1985/86	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	5,945.0	79,074.0
1987	1,221,600	2,932,100	4,307,953	5,890.0	79,664.0
1988	1,234,957	2,978,100	4,329,958	5,939.0	80,244.0

Frequency Range (Hertz)

YEAR	FREQUENCY RANGE
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
1987	49.81 to 50.17
1988	49.87 to 50.13

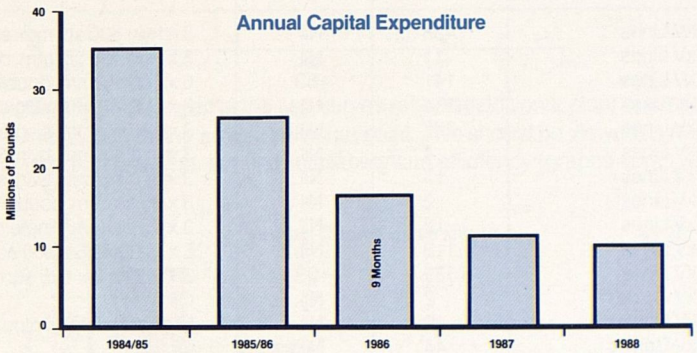
The frequency was maintained within the range shown for 95% of the time.

Graph 16



Graph 16: Following the completion of the major programme of Transmission capital development, the emphasis switched to the maintenance activity in which a backlog of work had built up. This is reflected in the exceptional increase from 1984/85 to 1986. Since then the trend in costs has been satisfactory.

Graph 17



Graph 17: Transmission capital expenditure continues to decrease and will continue to decline for the next few years.

Plant Availability
Transmission

YEAR	AVAILABILITY (%)
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
1987	95.8
1988	94.9

Transmission System at 31 December 1988

Stations

Transformer/Swtiching Stations	No. in Commission	Increase for Year	Total Capacity in kVA	Increase in Capacity for Year in kVA
400 kV Stations	3	Nil	990,000 at 17/400 kV 1,500,000 at 400/220 kV	Nil Nil
220 kV Stations	18	Nil	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 31,500 at 110/10 kV 412,000 at 10/110 kV 20,000 at 110/6 kV	Nil Nil Nil Nil Nil Nil +31,500 Nil Nil
110 kV Stations	79	-1	3,148,000 at 110/38 kV 127,500 at 110/10 kV 40,000 at 110/6 kV 122,400 at 38/10 kV 1,140,500 at 10/110 kV 88,000 at 10/38/110 kV 5,000 at 10/38 kV	+103,000 -31,500 Nil -10,000 -37,000 Nil Nil

Transmission System at 31 December 1988

Line and Cables

Lines and Cables	Length km.	Increase for Year km.	Description
400 kV Lines	438	Nil	3 x twin 600 sq. mm. single circuit SCA
275 kV Lines	11	Nil	6 x twin 485 sq. mm. double circuit SCA
220 kV Lines	141	+53	6 x 600 sq. mm. double circuit SCA
220 kV Lines	1,134	Nil	3 x 600 sq. mm. single circuit SCA
220 kV Lines	277	Nil	3 x 425 sq. mm. single circuit SCA
220 kV Lines	4	Nil	3 x 425 sq. mm. twin, SCA
220 kV Lines	13	Nil	3 x 600 sq. mm. twin, single circuit SCA
110 kV Lines	2	Nil	6 x 95 sq. mm. double circuit copper
110 kV Lines	12	Nil	3 x 95 sq. mm. single circuit copper
110 kV Lines	113	Nil	6 x 200 and 6 x 300 sq. mm. double circuit SCA
110 kV Lines	3,539	+23	3 x 200 to 3 x 425 sq. mm. single circuit SCA
400 kV Cables	2	Nil	Oil filled
220 kV Cables	19	Nil	High pressure oil pipe-type
220 kV Cables	44	Nil	Oil filled
110 kV Cables	44	Nil	Oil filled
110 kV Cables	39	Nil	Pipe compression
110 kV Cables	2	Nil	Cross-linked polyethylene

Transmission Capacity Trends

Station Capacity in kVA — Cumulative Data

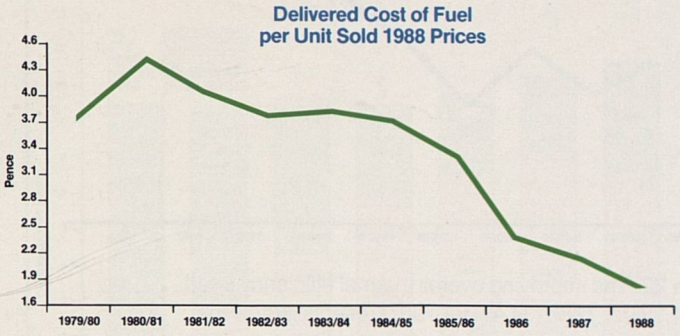
YEAR	110 kV	220 kV	400 kV
1979/80	4,150,900	5,952,000	—
1980/81	4,475,400	6,262,000	—
1981/82	4,664,400	6,887,000	—
1982/83	4,508,900	7,682,000	—
1983/84	4,556,900	7,900,000	—
1984/85	4,582,400	8,400,000	—
1985/86	4,587,400	8,400,000	830,000
1986 (9 mths)	4,589,900	8,650,000	1,660,000
1987	4,646,900	8,650,000	2,490,000
1988	4,671,400	8,681,500	2,490,000

Transmission Capacity Trends

Kilometres of Lines/Cables — Cumulative Data

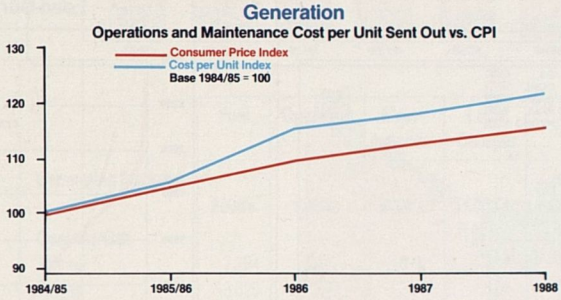
YEAR	110 kV	220 kV	275 kV	400 kV
1979/80	3,411.7	1,180.2	10.5	—
1980/81	3,430.8	1,313.6	10.5	—
1981/82	3,476.4	1,424.2	10.5	—
1982/83	3,546.2	1,427.2	10.5	—
1983/84	3,668.6	1,453.3	10.5	—
1984/85	3,710.3	1,453.3	10.5	0.6
1985/86	3,723.5	1,467.9	10.5	229.8
1986 (9 mths)	3,727.0	1,560.0	11.0	440.0
1987	3,727.0	1,578.0	11.0	440.0
1988	3,751.0	1,632.0	11.0	440.0

Graph 18



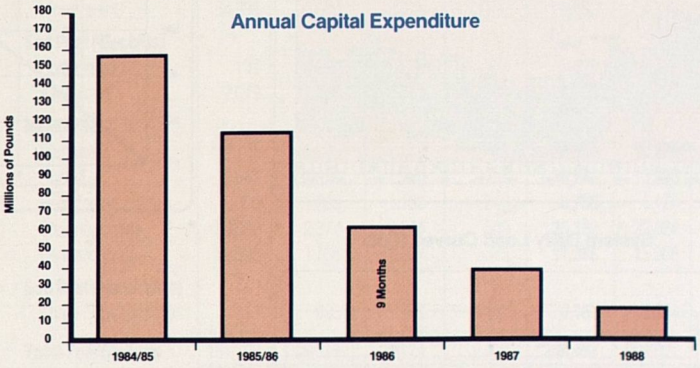
Graph 18: The improving trend in real fuel costs was maintained in 1988 due to continued low fuel prices and also above average hydro inflows during the year.

Graph 19



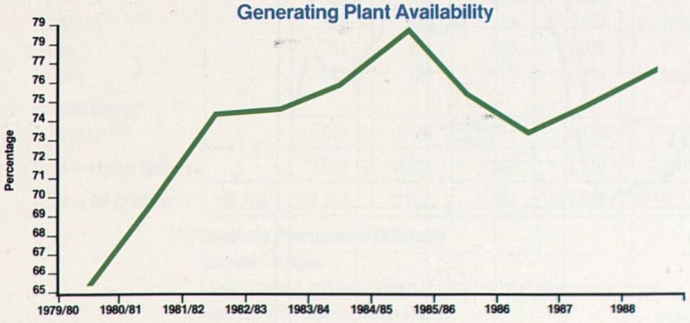
Graph 19: The gap in the two curves reflects additional plant operations and maintenance costs, mainly due to the advent of Moneypoint. This should be viewed, however, in the context of improving trends in fuel cost per unit, availability and efficiency (graphs 18, 21, 22).

Graph 20



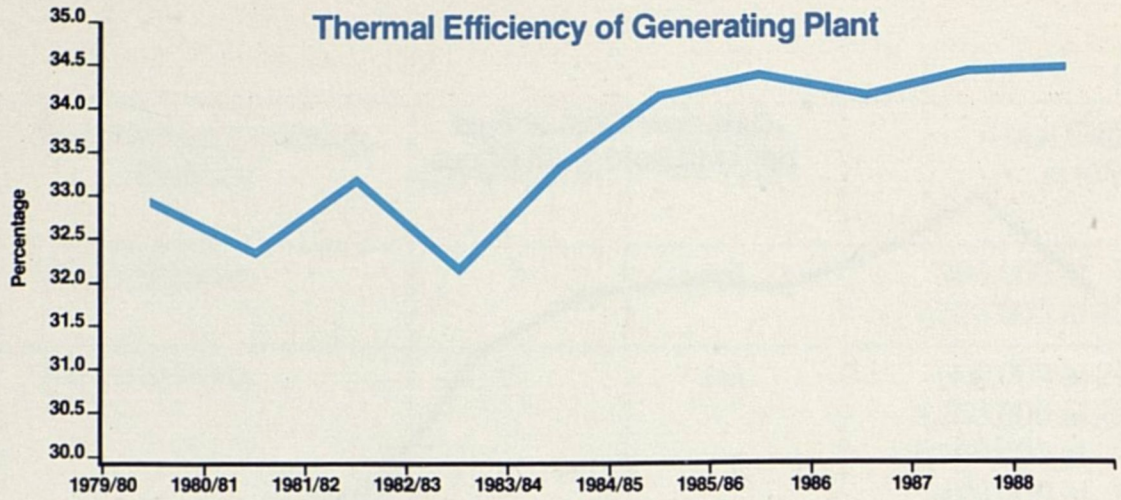
Graph 20: Generation capital expenditure continues to decline dramatically with the completion of major construction projects.

Graph 21



Graph 21: Incorporated within the 76.8% availability figure for 1988 (74.7% for previous year) is a relatively low forced outage rate (7.5%) and a high level of scheduled outages (15.6%) for desirable maintenance as opportunity permitted.

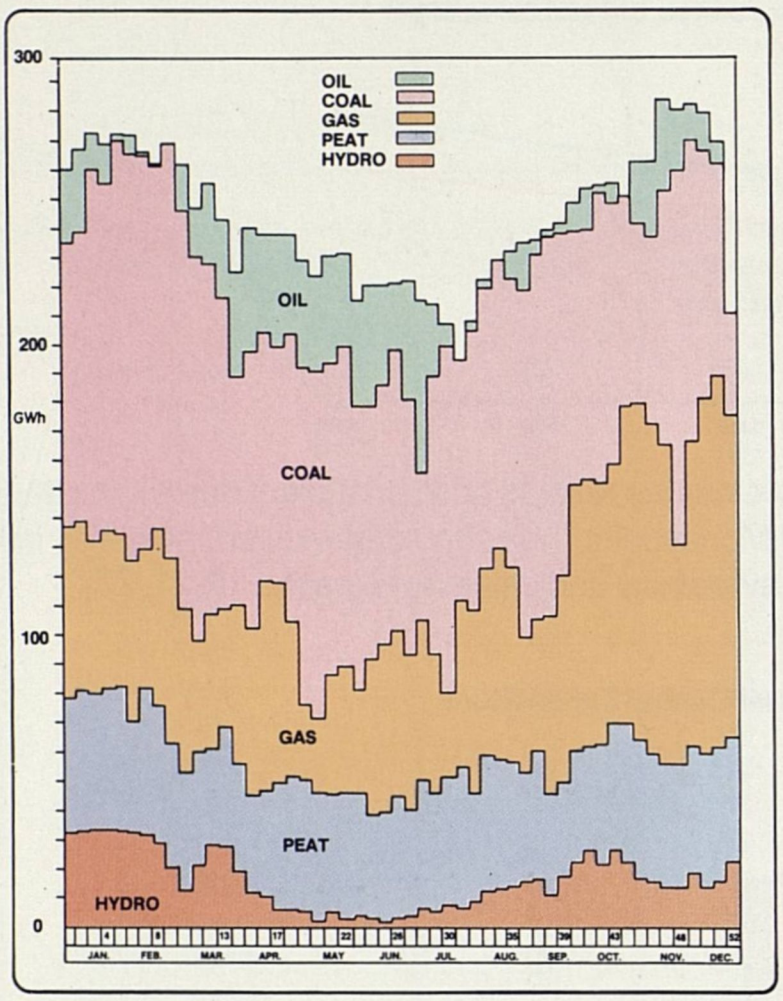
Graph 22



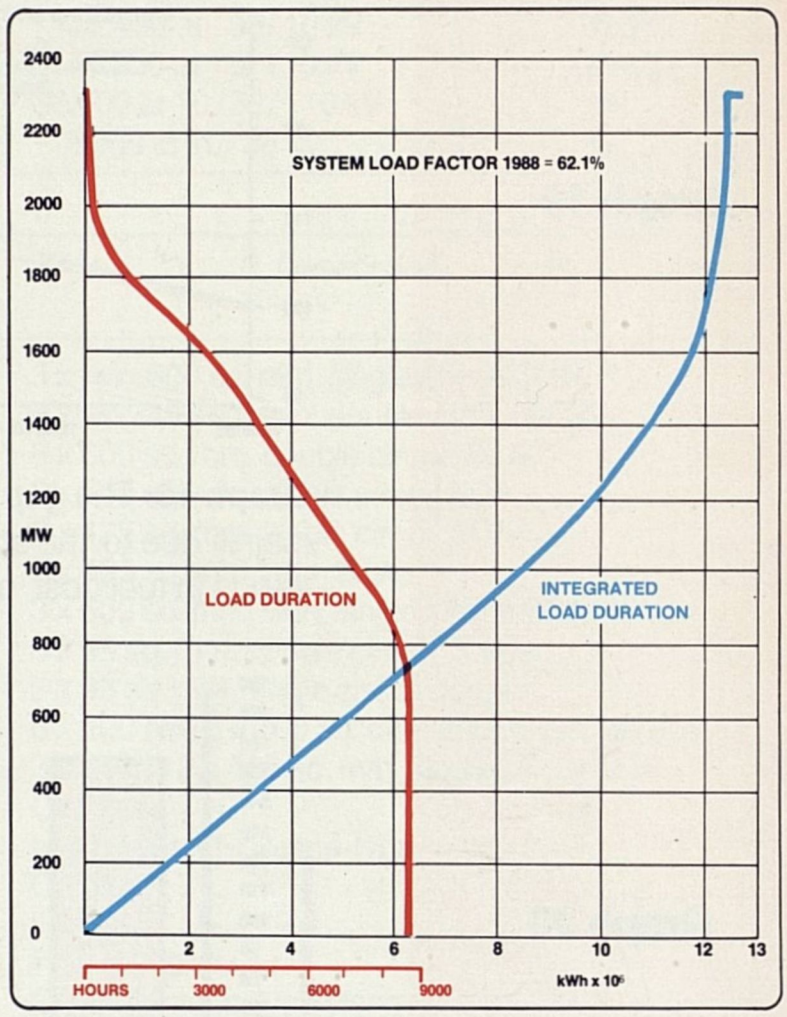
Graph 22: The improving overall thermal efficiency trend with 34.5% for 1988 (34.4% for 1987) reflects largely the high load factors achieved on high merit plant.

Graph 23

Graph 24

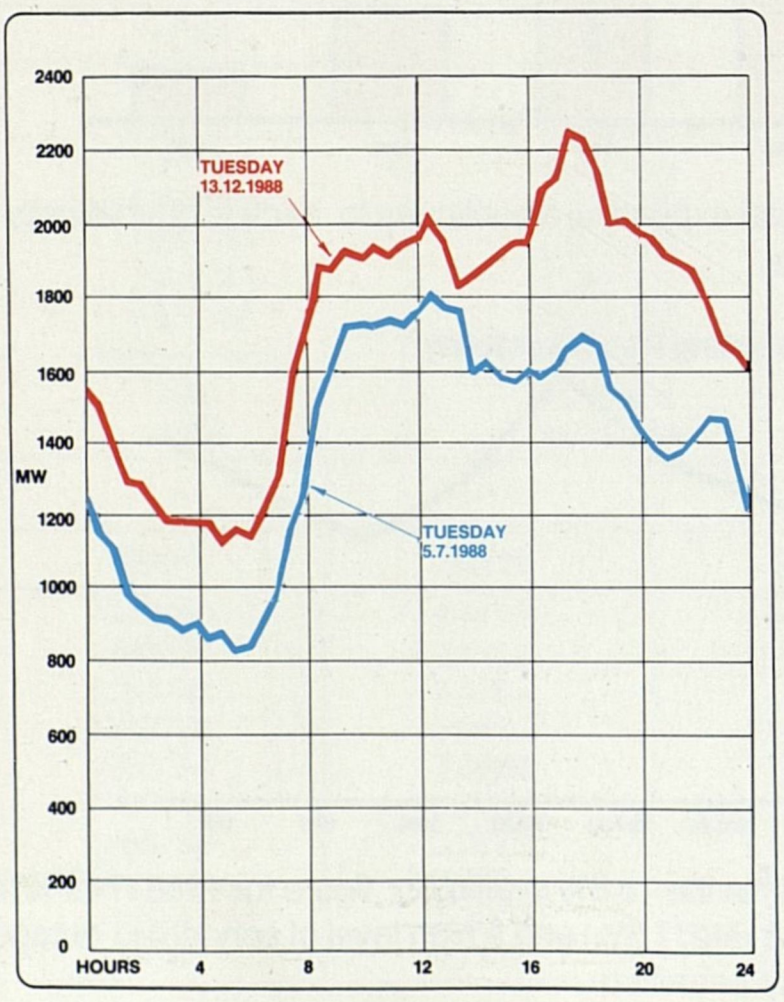


Weekly System Demand 1988



System Load Duration and Integrated Load Duration Curves 1988

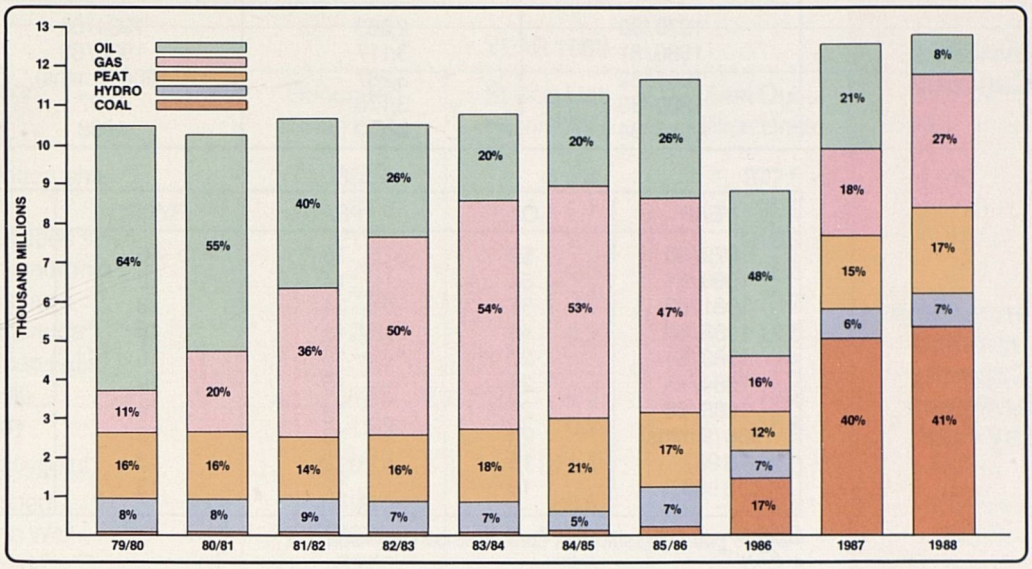
Graph 25



System Daily Load Curves 1988

Graph 26

Energy Sources Units Generated 1979/80 to 1988



Statement of Generation Costs

Generating Stations	Fuel £000's	Operation £000's	Main-tenance £000's	Local Charges £000's	WORKS COST 1988 £000's	WORKS COST 1987 £000's	Depreciation £000's	TOTAL COST 1988 £000's	TOTAL COST 1987 £000's
Coal/Oil/Gas									
Marina	7,294	1,432	2,014	330	**11,070**	10,040	772	**11,842**	10,793
Arigna	3,625	769	394	124	**4,912**	4,700	11	**4,923**	4,706
Great Island	1,936	1,422	2,096	562	**6,016**	6,447	529	**6,545**	6,947
Tarbert	11,239	1,948	3,694	606	**17,487**	25,876	1,602	**19,089**	27,384
Poolbeg	23,101	2,964	5,875	1,617	**33,557**	39,977	3,172	**36,729**	43,989
Aghada	8,470	1,797	3,803	613	**14,683**	30,892	2,975	**17,658**	34,033
North Wall	12,154	963	1,239	532	**14,888**	15,892	2,999	**17,887**	21,308
Moneypoint	54,398	5,808	8,814	2,132	**71,152**	74,132	21,295	**92,447**	93,856
Sod Peat (Machine)									
Portarlington	137	321	248	183	**889**	2,349	5	**894**	2,354
Allenwood	2,049	1,228	713	300	**4,290**	4,390	17	**4,307**	4,397
Milled Peat									
Ferbane	14,178	2,295	2,170	463	**19,106**	20,234	47	**19,153**	20,252
Rhode	12,647	1,919	1,940	437	**16,943**	13,596	48	**16,991**	13,610
Bellacorick	6,000	1,363	1,160	243	**8,766**	5,120	260	**9,026**	5,329
Shannonbridge	20,002	2,377	2,274	509	**25,162**	22,324	2,176	**27,338**	24,498
Lanesborough	13,825	1,788	1,397	375	**17,385**	15,968	2,045	**19,430**	17,980
Sod Peat (Hand-Won)									
Three 5MW Stations	714	923	343	181	**2,161**	2,084	15	**2,176**	2,088
Total-Fuel Stations	191,769	29,317	38,174	9,207	**268,467**	294,021	37,968	**306,435**	333,524
Hydro									
Shannon		943	1,713	423	**3,079**	3,165	214	**3,293**	3,202
Erne		465	883	246	**1,594**	1,427	126	**1,720**	1,558
Liffey		135	410	81	**626**	769	32	**658**	801
Lee		341	524	165	**1,030**	993	75	**1,105**	1,067
Clady		73	120	21	**214**	194	20	**234**	214
Pumped Storage									
Turlough Hill		678	1,184	311	**2,173**	2,012	604	**2,777**	2,625
Total — Hydro Stations		2,635	4,834	1,247	**8,716**	8,560	1,071	**9,787**	9,467
Total — All Stations	191,769	31,952	43,008	10,454	**277,183**	302,581	39,039	**316,222**	342,991
Electricity Purchased in Bulk (net)								**517**	463
General Charges								**33,164**	27,080
Costs (current and remaining) of Stations now decommissioned								**3,364**	2,994
Fisheries (Net Conservation Cost)								**834**	1,019
TOTAL COST								**354,101**	374,547

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

OPERATIONS

Installed Capacity

YEAR	MW	YEAR	MW
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
1982/83	3,175	1987	4,009
1983/84	3,260	1988	3,937

Percentage Installed Capacity Analysed by Fuel

YEAR	OIL	PEAT	HYDRO	COAL	GAS
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
1987	15	12	13	23	36
1988	16	12	13	24	35*

*Of the plant classified as Gas, 81% can also burn Oil.

Percentage Plant Forced Outage Rate

YEAR	MW	YEAR	MW
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
1982/83	12.1	1987	7.9
1983/84	8.0	1988	7.5

Thermal Efficiency Percentage (of Conversion of Primary Energy to Electricity)

	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986 (9 mths)	1987	1988
Gas	34.6	36.0	37.0	35.1	37.3	38.7	38.7	35.2	37.0	39.0
Oil	36.1	35.8	35.8	34.6	35.2	36.5	36.2	36.8	36.5	33.6
Milled Peat	23.7	23.4	23.0	23.8	24.0	25.2	24.8	24.8	24.8	25.1
Sod Peat	21.5	20.8	20.0	21.2	21.5	22.6	22.0	19.6	19.0	20.8
Coal	—	—	—	—	—	—	—	35.5*	37.6*	37.5*
Overall	32.9	32.4	33.2	32.1	33.3	34.2	34.4	34.2	34.4	34.5

*Includes native coal

Station Staff Numbers per MW of Installed Capacity

YEAR	PEAT	OIL	GAS	COAL
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	—
1987	1.96	0.59	0.46	0.46
1988	1.89	.058	0.46	0.46

Age of Generating Plant at Year-End (1988)

Fuel Type \ Age	Under 5 Years MW	5 to 10 Years MW	10 to 15 Years MW	15 to 20 Years MW	20 to 25 Years MW	20 to 25 Years MW	Over 30 Years MW	Total MW
Oil	—	—	500	120	—	—	—	620
Peat	—	90	40	—	110	120	115	475
Gas	—	890*	270	240	—	—	—	1,400
Hydro	—	1	219	73	—	4	215	512
Coal	915	—	—	—	—	—	15	930
Total MW	915	981	1029	433	110	124	345	3,937

*Combined Cycle plant at Marina and North Wall incorporates refurbished steam turbines.

Generation Statistics for 1988

Station	YEAR 1988			YEAR 1987
	Generated Million Units	Station Use Million Units	Sent Out Million Units	Sent Out Million Units
Ardnacrusha	380.3	2.8	377.5	302.5
Cliff	94.0	1.1	92.9	75.1
Cathaleen's Fall	219.0	2.1	216.9	181.8
Carrigadrohid	27.1	0.5	26.6	20.7
Inniscarra	73.6	0.9	72.7	55.7
Pollaphuca	20.4	0.9	19.5	16.9
Golden Falls	7.7	0.1	7.6	6.7
Leixlip	13.5	0.3	13.2	12.5
Clady	15.9	0.1	15.8	15.7
Moneypoint	5,202.4	371.4	4,831.0	4,654.7
Poolbeg	1,590.5	88.6	1,501.9	1,548.8
North Wall	892.8	16.8	876.0	620.1
Aghada	632.0	29.8	602.2	1,246.0
Tarbert	616.6	48.0	568.6	882.0
Marina	550.5	8.1	542.4	263.4
Great Island	98.8	9.1	89.7	154.6
Shannonbridge	654.6	60.7	593.9	483.2
Lanesboro	490.1	43.4	446.7	401.7
Ferbane	390.3	33.9	356.4	389.4
Rhode	383.2	33.5	349.7	272.6
Bellacorick	177.0	14.2	162.8	61.0
Arigna	64.5	4.5	60.0	63.2
Allenwood	60.5	4.5	56.0	53.2
Portarlington	3.3	0.6	2.7	21.3
Cahirciveen	9.3	1.2	8.1	5.3
Gweedore	6.6	1.1	5.5	2.1
Screeb	0.4	0.2	0.2	2.4
Turlough Hill (Generating)	333.2	4.1	329.1	429.9
Turlough Hill (Pumping)	462.9	—	462.9	577.4
ESB Import	—	—	—	—
ESB Export	—	—	—	—
Purchased	17.8	—	17.8	16.2
	12,563.0	782.5	11,780.5	11,681.3
Maximum Daily Generation — Million Units			**43.1**	44.8
Maximum Load Generated in MW			**2,313**	2,351

Notes: 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.
The figures for 1987 are for a 53 week accounting period.

Particulars and Performance of Generating Plant

Thermal Stations

Station	Plant Particulars					Plant Performance 1988			
	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	162.8	50.7	3.686	5.386
Ferbane A	3	60	3	300	Milled Peat	193.7	41.0	4.396	5.923
Ferbane B	1	30	1	130	Milled Peat	162.6	66.9	3.481	4.694
Shannonbridge	3	125	3	522	Milled Peat	593.9	60.0	3.368	4.237
Lanesboro	2	85	2	349	Milled Peat	446.7	66.0	3.095	3.892
Portarlington†	1	12	3	205	Sod Peat	2.7	3.0	5.155	33.449
Allenwood	2	40	4	273	Sod Peat	56.00	17.3	3.658	7.656
Cahirciveen	1	5	1	28	Sod Peat	13.8	13.9	5.164	15.616
Gweedore	1	5	1	28	Sod Peat				
Screeb	1	5	1	28	Sod Peat				
Rhode A	2	40	2	191	Milled Peat	119.2	37.8	4.359	6.149
Rhode B	1	40	1	173	Milled Peat	229.7	71.9	3.229	4.164
Moneypoint	3	915	3	2808	Coal	4831.0	65.1	1.126	1.473
Arigna	1	15	1	75	Coal	60.0	49.3	6.043	8.190
Great Island	1	120	1	250	Oil	89.7	9.4	2.157	6.706
Marina	1	30	1	132	HR**	508.4		1.435	2.177
	1	85	Combustion Turbine		Gas		51.2		
Aghada	1	270	1	800	Gas	602.2	25.5	1.407	2.438
	3	255	Combustion Turbines		Gas/Oil		1.3		
Poolbeg	3	510	3	1560	Gas/Oil	1501.9	35.6	1.538	2.234
Tarbert	2	500	2	1600	Oil	568.6	14.1	1.976	3.075
North Wall	1	104	Combustion Turbine		Gas/Oil	876.0	1.2	1.388	1.700
	3	42	1	174	HR**		63.8		
	1	104	Combustion Turbine		Gas/Oil				

Excludes 8 x 60 MW Decommissioned units in long term storage — Great Island (2), Marina (1), Ringsend (3), Tarbert (2), and other plant being retired — Ringsend (3 x 30 MW), Poolbeg (2 x 14 MW), Lanesboro (20 MW), Milltown Malbay (5 MW), Marina (3 x 20 MW Boilers).

†Portarlington station was decommissioned at the end of March 1988.

*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.

Particulars and Performance of Generating Plant

Hydro Stations

Station	Average Annual generation million units	Plant Particulars		Plant Performance for 1988		
		Generating Sets		Units sent out millions	Plant load factor %	Works cost per unit sent out (pence)
		No.	Capacity (MW)			
Ardnacrusha	315	5	86	377.5	50.1	0.815
Pollaphuca	45	2	30	19.5	7.8	1.552
Golden Falls		1	4	7.6	17.4	
Leixlip		1	4	13.2	38.3	
Cliff	275	2	20	92.9	53.1	0.514
Cathaleen's Fall		2	45	216.9	53.7	
Carrigadrohid	77	1	8	26.6	38.8	1.037
Inniscarra		2	19	72.7	44.8	
Clady	13	1	4	15.8	45.8	1.356
Turlough Hill — Pumped Storage	—	4	292	329.1	—	—

Peak Load Trends

YEAR	MW
1979/80	1,971
1980/81	1,892
1981/82	1,999
1982/83	1,924
1983/84	1994
1984/85	2,092
1985/86	2,130
1986 (9 mths)	2,178
1987	2,351
1988	2,313

System Demand Trends

YEAR	MILLION UNITS
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
1987	12,491
1988	12,563



ELECTRICITY SUPPLY BOARD
BORD SOLÁTHAIR AN LEICTREACHAIS

Fisheries Report

for year ending 31 December 1988

To the Minister for the Marine

This is the Board Report and Accounts for the year ended 31st. December, 1988 sent in accordance with the Electricity Supply Acts 1927/1988.

The financial results can be summarised as follows — £834,000 was spent on the development, conservation and protection of the fisheries in the river basins under ESB control, and commercial fishery operations now trading in a subsidiary company (SALMARA) had a surplus for the period of £510,000.

For the development and restocking programmes more than 1,300,000 smolts and fingerlings were released. The recorded salmon runs are shown below. There was an increased run in all rivers except the Shannon where large scale illegal drift netting offshore continues without any regard for the inevitable elimination of wild salmon on the Shannon and its tributaries which this offshore pillage is causing.

During the year ESB continued its programme for the proper care and maintenance of all the amenities under its control with an emphasis on protecting and upgrading those which are valuable assets as tourism and public amenities.

The Board wishes to thank all the people employed in fisheries for continued dedication to the activity and for their contribution to a year of satisfactory results.

COMMERCIAL FISHERIES

Salmara, the commercial fisheries activity of ESB, continued to trade profitably. In conjunction with local interests new farms were started in Inver, Co. Donegal and Castletownberehaven, Co. Cork.

The programme for job creation in salmon farming is on target and the Board appreciates very much the support and help of the staff of the Department of the Marine. Salmara farms now employ 110 staff full-time.

Eel fishing was affected by low rainfall and the catch was 25% below average.

STOCKING OF RIVERS 1988 CALENDAR YEAR

	Ova	Fry	Fingerlings	Pre-Smolts	Smolts
Shannon	—	110,000	189,000	72,000	143,000
Lee			15,000		110,000
Erne	534,000	—	30,000	12,000	46,000
Liffey			10,000		1,800

FISH PASS FIGURES 1988

Shannon	Ardnacrusha	3,241
	Parteen	896
Lee	Inniscarra	957
Clady	Gweedore Weir	187
Erne	Cathaleen's Fall	2,276
Liffey	Leixlip	1,241

Fisheries — Salmara
Year ended 31 December 1988

	1988 £000's	1987 £000's
Income	**2,898**	2,811
Expenditure:		
Direct Costs	**1,638**	1,589
Overheads and General Charges:		
Payroll, expenses and charges	**275**	186
Depreciation	**126**	36
Interest	**349**	201
	2,388	2,012
Surplus for year	**510**	799

Note: Fisheries Assets at 31 December 1988 include the following:

	£m.
— Fixed Assets	**3.6**
— Net Current Assets	**3.3**
	6.9

Fisheries — Conservation Operations
Year ended 31 December 1988

	1988 £000's	1987 £000's
Direct Costs	**859**	1,043
Overheads:		
General charges and expenses	**5**	5
	864	1,048
Less: Letting of fishing rights and miscellaneous income	**30**	29
Net Cost for year	**834**	1,019

Auditors' Report to Electricity Supply Board

We have examined the above figures which have been extracted from the accounting records of Electricity Supply Board In our opinion, the above extracts are consistent with the financial statements for the year ended 31 December 1988 set out on pages 8 to 18.

KPMG Stokes Kennedy Crowley
Chartered Accountants
DUBLIN

4 April 1989



ELECTRICITY
BORD SOLÁTHAIR

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ELECTRICITY SUPPLY BOARD
BORD SOLÁTHAIR AN LEICTREACHAIS

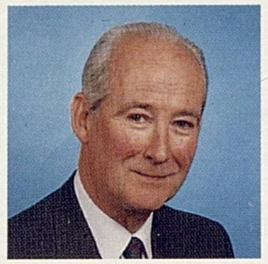
Board Members and Directors

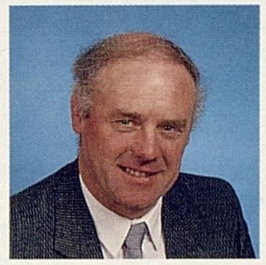
year ended 31 December 1988

Board Members


W. Cremins.


Betty Dillon.


C. T. G. Dillon, Chairman.


S. Geraghty.


D. Holland.

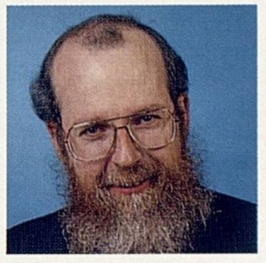

P. J. Kevans.


J. LaCumbre.


K. Lynch.

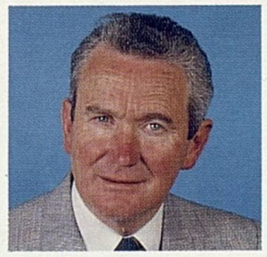

W. McCann.

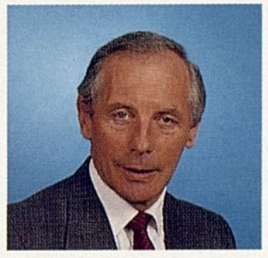

P. J. Moriarty,
Chief Executive.


J. Wrynn.

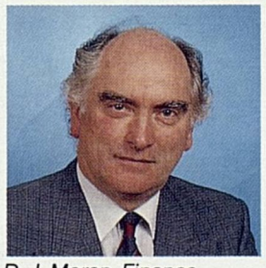
Executive Directors


L. Canning,
Personnel & Public Affairs.

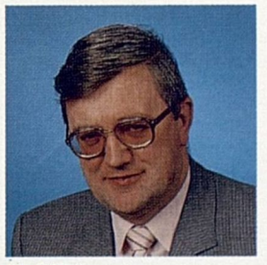

J. A. Duffy,
Chief Operations Officer.


M. Hayden,
ESB International.


A. G. Kelly,
Generation & Transmission
Operations.


D. J. Moran, Finance.


K. O'Hara,
Customer Operations.


K. O'Brien,
Corporate Services.

Information 1988



ELECTRICITY SUPPLY BOARD
BORD SOLÁTHAIR AN LEICTREACHAIS

Board Members

C. T. G. DILLON, Chairman
W. CREMINS
BETTY DILLON
S. GERAGHTY
D. HOLLAND
P.J. KEVANS
J. LaCUMBRE
K. LYNCH
W. McCANN
P. J. MORIARTY, Chief Executive
J. WRYNN

Directors

Personnel and Public Affairs
L. S. CANNING

Customer Operations
K. O'HARA

Generation and Transmission Operations
A. G. KELLY

Corporate Services
K. O'BRIEN

Finance
D. J. MORAN

Managing Director, ESB International
M. HAYDEN

Chief Operations Officer
J. A. DUFFY

Secretary

J. F. WILLIAMS

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NORTH EAST Chapel Street, Dundalk, Co. Louth. Telephone: 042-32211	D. Doherty
NORTH WEST Castle Street, Sligo. Telephone: 071-45261	P. Osborne
SOUTH EAST The Mall, Waterford. Telephone: 051-73301	T. Dalton
SOUTH WEST Wilton, Cork. Telephone: 021-544988	J. J. Duane
WEST Bishop's Quay, Limerick. Telephone: 061-45599	D. Greene

Generation Groups and Managers

THERMAL GROUP 1 Centre Park Road, Cork. Telephone: 021-964244	D. O'Shea
THERMAL GROUP 2 Cloghan, Birr, Co. Offaly. Telephone: 0506-55225	W. Flood
HYDRO GROUP Ardnacrusha, Co. Clare. Telephone: 061-345588	C. O'Dowd

Assistant Chief Operations Officer

Operations Department, ESB Head Office, Lr. Fitzwilliam St., Dublin 2. Telephone: 765831, Ext: 6885.	D. McMahon

ESB Input to Ireland's Economy

	1984/85 £ millions	1985/86 £ millions	1986 (9 mths) £ millions	1987 £ millions	1988 £ millions
Fuel: Natural Gas, Peat, Native Coal	210	199	86	117	119
Irish Suppliers of Goods and Services including Capital Work	120	97	86	120	129
Rates Levy and Local Rates	25	26	20	27	28
Payroll Costs including Capital Projects	203	209	163	223	223
Interest paid to Irish Lenders & Stockholders	39	50	49	40	28
TOTAL	597	581	404	527	527

Data Summary

	1987	1988
FINANCIAL		
Financial Outcome. Surlus/(Deficit)	(£5m)	£5m
Income	£780m	£756m
Assets in Commission (before Depreciation)	£2,050m	£2,129m
Sales (Million Units)	10,506	10,616
Effective Generating Capacity (MW)	4,009	3,937
Peak Load (MW)	2,351	2,313
Customers	1,221,600	1,234,957
EMPLOYMENT		
Total Employees at year end	11,383	10,903
Operations	9,143	8,882
New Works	1,802	1,601
External Activities and Secondment	134	137
Apprentices	304	283
Pay	£185m	£186m
ESB Contributions to Pension Fund, PRSI and Expenses	£38m	£37m

Generation Capacity

FUEL TYPE	MW
HYDRO	220
HYDRO (PUMPED STORAGE)	292
COAL	930
PEAT	475
GAS	385
OIL	620
GAS OR OIL	1015
TOTAL:	3937

Sources of Energy

	Primary Generation (Million Units)	%
HYDRO	851	7
PEAT	2,175	17
COAL	5,267	41
GAS	3,396	27
OIL	985	8
TOTAL PRIMARY GENERATION	12,675	100
PUMPED STORAGE (GENERATION)	333	
PUMPED STORAGE (PUMPING)	(463)	
PURCHASED	18	
TOTAL SYSTEM DEMAND	12,563	

Analysis of Units Sold — 1988

Class of Supply	Millions
Domestic	
General Supply	3,966.8
Night Rate	237.3
	4,204.1
Commercial	
General Supply	973.6
Heating, Cooking and Water Heating	220.8
Night Space Heating	182.4
Public Lighting	133.3
Maximum Demand	895.6
Miscellaneous	60.4
	2,466.1
Industrial	
Maximum Demand	
High Tension	3,075.5
Low Tension	725.2
Miscellaneous	144.9
	3,945.6
Total	10,615.8

Growth of ESB 1930–1988

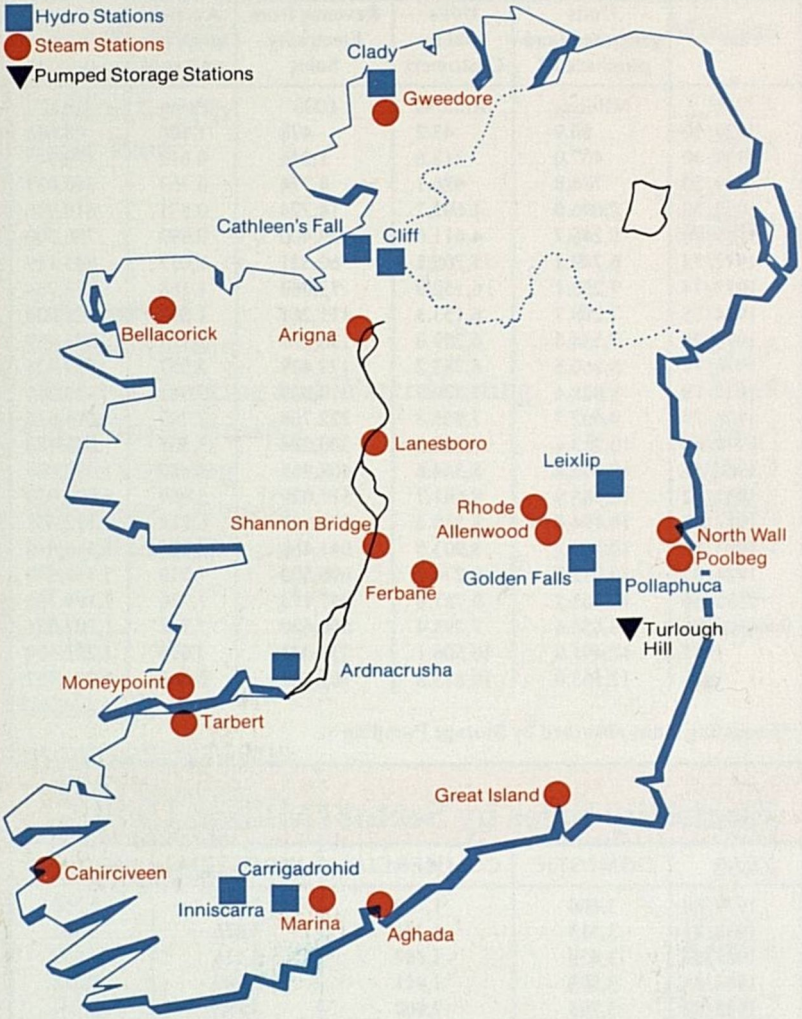
Year	Units generated (and purchased)*	Units sold to Customers	Revenue from Electricity Sales	Average price per unit sold	Customers
	Millions	Millions	£000	Pence	Total
1929/30	60.9	43.2	478	1.108	48,606
1939/40	407.0	318.6	1,946	0.612	172,545
1949/50	784.8	626.1	4,774	0.763	310,639
1959/60	2,096.0	1,692.2	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
1987	12,491.0	10,506.1	736,441	7.010	1,221,600
1988	12,563.0	10,615.8	707,627	6.666	1,234,957

*Excluding Units absorbed by Storage Pumping

Electricity Sales by Sector (Million Units)

YEAR	DOMESTIC	COMMERCIAL	INDUSTRIAL	TOTAL
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
1987	4,230	2,437	3,839	10,506
1988	4,204	2,466	3,946	10,616

IRELAND'S GENERATING STATIONS



ELECTRICITY SUPPLY BOARD
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Telefax 615376.

GENERAL OUTLINE OF THE

GENERATION AND TRANSMISSION SYSTEMS

- Hydro Stations
- Steam Stations
- Pumped Storage Station
- 400kV Transformer Stations
- 220kV Transformer Stations
- 110kV Transformer Stations
- 110kV Transformer Stations Projected

- 400kV Lines
- 220kV Lines
- 220kV Lines Projected
- 110kV Lines
- 110kV Lines Projected
- Other High Voltage Lines
- 275kV Lines

31st DECEMBER 1988

