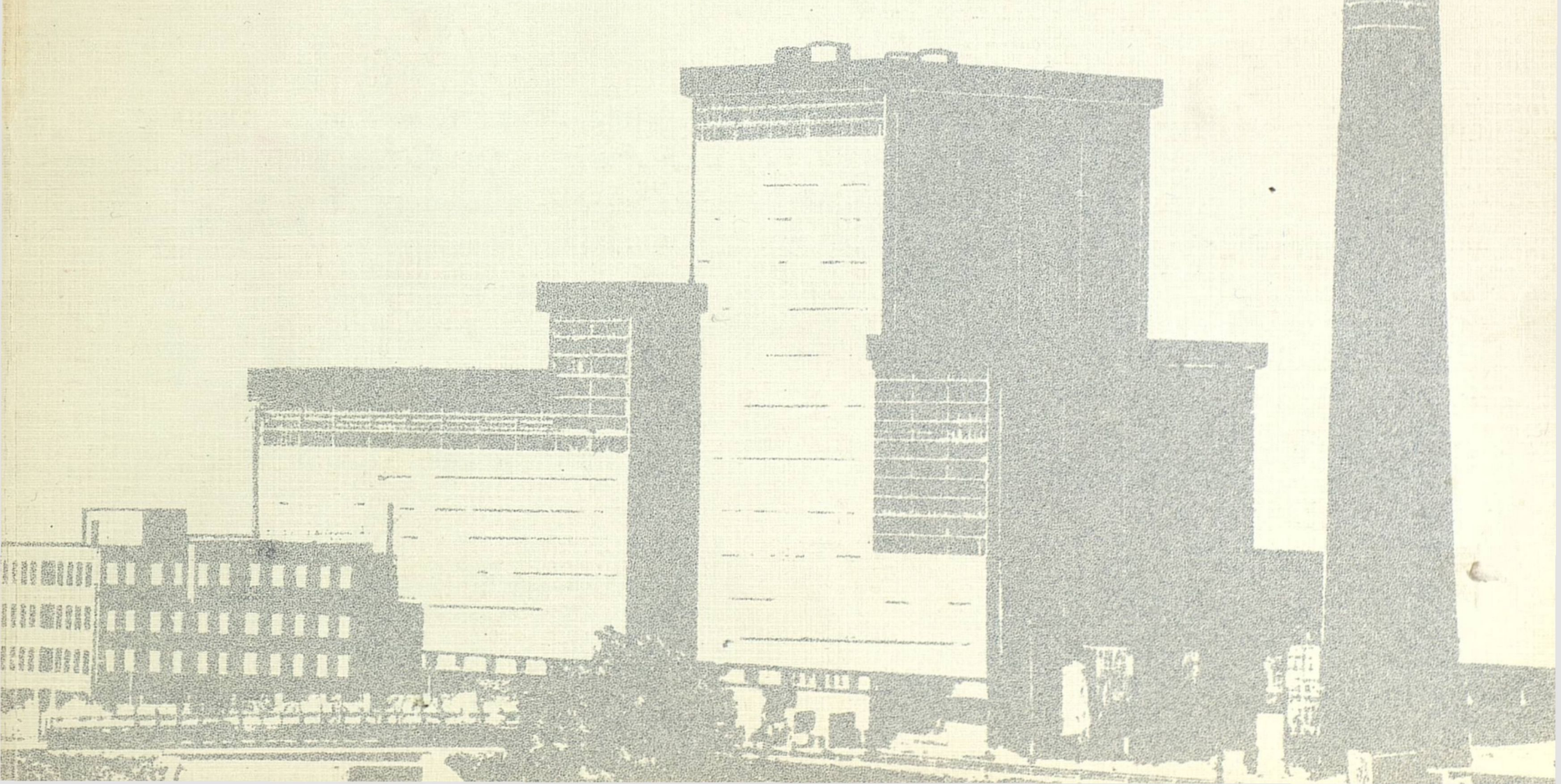


Electricity Supply Board
Bord Soláthair an Leictreachais

Fifty third Annual Report
For year ended 31st March 1980



Report and Accounts for year ended 31st March 1980.

Board Members

PROFESSOR C. T. G. DILLON, M.E., C. Eng., F.I.E.I., F.I.E.E., F.I.Mech.E., **Chairman**

L. BOYD, F.C.I.T.

J. COHALAN, M.Sc. (Econ.)

T. GILMARTIN

R. B. GODSIL

D. HATCH

C. KELLEHER

J. J. KELLY, M.E., LL.D., C.Eng., F.I.E.I., F.I.Mech.E., **Chief Executive**

G. N. POWER, F.C.A.

J. A. RYAN, M.A., LL.D.

A. RYDER

J. P. WYLEY, B.Comm.

Assistant Chief Executive

P. J. MORIARTY, F.C.I.S., M.I.P.M.

Directors

Finance **J. B. O'DONOGHUE,** F.C.C.A., A.C.M.A.

Personnel **T. V. FAHY,** B.E.

Commercial/Distribution **C. McCABE,** B.E., F.I.E.I., C.Eng.

Generation/Transmission **A. G. KELLY,** B.E., Ph.D., F.I.Mech.E., Mem.A.S.M.E., M.I.E.I.

Advance Projects **S. TINNEY,** B.E., B.Sc., M.I.E.E.

Energy Resources **J. F. LANG,** M.E., C.Eng., F.I.Mech.E., M.I.E.I., M.I.E.E., M.Inst.E.

Secretary

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

Electricity Supply Board,
Lower Fitzwilliam Street, Dublin 2, Ireland.
Telephone: Dublin 765831 and 771821.



Significant Facts

	1979/80	1978/79
REVENUE Electricity	£300,470,000	£222,768,000
Appliance Sales (Net of Taxes)	£7,841,000	£6,111,000
Installations	£3,336,000	£2,923,000
ASSETS	£689,873,000	£600,058,000
PAYROLL	£92,022,000	£74,527,000
SALES (million units)	8,560	7,965
GENERATION CAPACITY (MW)	2,862	2,895
PEAK DEMAND (MW)	1,971	1,934
LOAD FACTOR	59.3%	56.8%
CUSTOMERS	1,043,428	1,015,636
EMPLOYEES	11,912	11,297

(Cash figures are rounded off to the nearest thousand)

Prl. 8917.

Picture above:
The first word processing unit in the country to incorporate an optical character recognition device, has been installed by the E.S.B.



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Picture above:
Tarbert Generating Station, seen from the site for the new coal-fired station at Moneypoint.

To the Minister for Energy

In accordance with the provisions of the Electricity Supply Acts 1927/79, the Board presents its Annual Report and Accounts for the year ended 31st March, 1980.

FINANCIAL:

High inflation in all costs, particularly in fuel-related items, and delays in having these costs reflected in the electricity prices, were the main factors affecting the outcome of the year's trading. The financial result was a deficit of £9.31 million which is a serious setback to the Board's financial position. When added to the deficit brought forward from the previous year, the accumulated deficit now reaches a figure of £21.25 million. Additional difficulties arose from industrial relations problems which delayed the introduction of natural gas and a demarcation dispute at the Poolbeg Generating Station. While borrowing costs increased sharply during the year, the full impact of high interest rates was mitigated by exercising options, where available, to borrow in European currencies at comparatively favourable rates. The stability of the Irish pound within the E.M.S. assisted significantly in this course.

Electricity price increases are applied following due examination by the National Prices Commission and the Government. At a time of rapidly increasing fuel oil costs which are effectively outside national control, long intervals between the submission of proposals for price adjustments and eventual receipt of sanction to apply them prevent the Board from achieving a balanced income and expenditure account as required by statute. The Board warmly welcomes the efforts now being made at official level to shorten this interval. The reactivation for the October/November 1979 billing period of the Fuel Cost Variation charge, which is an essential element in electricity tariffs in an unstable fuel price environment, is regarded as a first result from these efforts. The price adjustment approved on the 25th July, 1980 provides a further step in restoring the Board's finances, thus helping towards a return to a reasonable level of internal resources for capital funding. Previous annual reports have consistently emphasised that the Board should have a strong financial base if it is to undertake the essential heavy capital and development programme required in the national interest. Elimination of deficits and maintenance of an adequate internal resource contribution are essential to such a financial base.

PRICE OF ELECTRICITY:

The Board is conscious that electricity tariffs have increased dramatically during the past 12 months due to the price upheaval in world energy markets. Oil costs rose 130% in the course of the year and now account for more than half of electricity costs. Fuel increases approved since 1979 reflect this significant change in the E.S.B. fuel bill. There is still no stability in world energy prices and, unfortunately, the outlook is unfavourable.

SUPPLY:

During the first half of the year there were minor voltage reductions and disruptions of supply due largely to the inter-union demarcation dispute at the Poolbeg Generating Station. The Board records its thanks to its customers who responded to its appeals to curtail demand during this period. Peak demand was met without incident in the mild winter.

Because of the general improvement and availability of coal and oil supplies on the domestic sector, an expected energy transfer to electricity did not continue to any significant extent during the winter months. However, there has been a reduction in the growth rate for domestic and commercial sales and the buoyancy in industrial demand which had continued during the year is now showing signs of slackening.

PAPAL VISIT:

A major event during the year was the visit in the Autumn of His Holiness Pope John Paul II. Some 250 E.S.B. staff in five Districts were directly involved in laying on a reliable electricity supply to the six major venues in order to provide lighting, catering, television and telecommunications facilities. This unprecedented work was carried out at short notice and happily everything worked perfectly on the day.

ENERGY:

The E.S.B. share of the national energy market continued its steady increase reaching 31.5% for the year. The difficulties, however, in developing long-term plans in the electricity industry continue, associated, for example, with the long lead-times and capital intensity of generating plant, uncertainties about the pace of economic growth, sources of primary energy and interconnection with external electricity networks. The main elements of E.S.B. strategy to cope with these difficulties continue to be:

1. conservation and the wise use of energy;
2. maintaining a readiness to respond as quickly as is practicable to economic trends.
3. Seeking to diversify primary energy sources with the maximum degree of flexibility.

Conservation efforts are being intensified, concentrating both on peak load to reduce the need for plant and on total energy demand to reduce fuel imports. Increased investment has been allocated towards improving the availability of existing plant and towards giving a second life to plant which is becoming obsolete or is being curtailed in its output because of age. The main thrust of the Board's effort to achieve diversification is through coal plant from 1985 onwards, but all proposed new plant has some fuel options. To reduce the Board's dependence on imported oil, the Board is concentrating its main efforts on (i) conservation, and (ii) the maximum possible substitution from indigenous sources as, for example, low-grade coal and forestry wastes.

A 45 MW low-grade coal project has been proposed for Arigna in the context of which the E.S.B. has now developed a satisfactory combustion technique for this high-ash coal. Further work has begun in connection with the South Leinster low-grade coal, and a combustion rig to test the viability of burning this coal is being constructed at the N.I.H.E., Limerick. A biomass project of 5 MW based on short rotation forestry is being carried out in partnership with Bord na Mona and the Department of Fisheries and Forestry. Recent tests carried out indicate that a blend of wood chips and domestic coal slack can be successfully burned at the sod peat stations. This slack has been surplus in Ireland and has, in the past, been re-exported. The use of these fuels can also help to extend the life of the sod peat stations in the Midlands. Three experimental wind generation machines are scheduled for installation in

the current year. Several new schemes for small hydro developments are under consideration and the Parteen hydro scheme will be commissioned in 1980.
The E.S.B. maintains close contact with all countries involved in the exploitation of wave energy and provides funding and technical support for Irish participation in the relevant International Energy Agency project with Japan, U.K., U.S.A. and Canada. In addition, a scheme for hydro power extraction in the Shannon estuary is being examined to ascertain its viability. The use of heat recovery steam-raising boilers to maximise the efficiency of conversion of primary energy into electricity in the case of combustion turbines is now being extended to North Wall to utilise the 48 MW of existing steam turbine plant. A similar 40 MW unit is already in operation at Marina. Blending bunkers for the milled peat stations in the Midlands are being completed.

INTERCONNECTION:

Unlike the systems of our E.E.C. partners, the Irish electricity system continues to be completely isolated. The outlook for any immediate improvement by restoring the interconnector with Northern Ireland on a firm basis has not improved. The benefits of an interconnector for a small isolated system such as the E.S.B. cannot be overstated. Without interconnection, a substantial amount of additional power-station plant must be installed to meet peak demands. There have been some exploratory inter-governmental talks regarding a possible international link between the E.S.B. and Europe via the Central Electricity Generating Board's networks in the U.K.

NUCLEAR:

In last year's report the Board referred to the Government proposal for a Public Inquiry into nuclear power. Since that time an investigation into the incident at the Three Mile Island nuclear station in the U.S. has been in progress and the results of this investigation and the lessons to be learned must be studied and will be considered by the Public Inquiry. It has also highlighted the financial risks for small utilities in the event of a prolonged loss of generation capacity from a large nuclear unit, as well as the considerable problem of accommodating the scale of even the smallest commercially available nuclear unit on a small isolated system. As instructed by the Government, the Board is completing the preparatory process of planning for the project. Draft specifications are being prepared and they will be available to the Tribunal when it is set up. Public statements on behalf of the Government, however, now indicate that there will be some delay in the setting up of the Public Inquiry. This delay inevitably means that the earliest possible date for commissioning a nuclear station in Ireland would now recede into the 1990's.

CONSULTANCY:

The Board's involvement in consultancy services, both at home and abroad, continued during the year and resulted in a net surplus of £0.66 million on a turnover of approximately £4 million. Consultancy activity was undertaken during the mid-1970's when there was a down-turn in the energy-related capital programme. It is now a well-established activity. It is also a notable earner of foreign currency, providing an enhanced international status for Irish expertise, and it is a help in the development of the Third World. Apart from the direct benefits to the E.S.B., it provides an opportunity for Irish exporters to develop further business with consequential improvement to the national economy. A short outline and a separate Income and Expenditure Account is published with this report in accordance with legislation.

TRADING:

Since the 1973 oil crises the Board has been progressively changing the role of its trading activities, especially in regard to appliance sales and appliance repairs. The new role, generally, is to emphasise the national need for energy conservation and the wise use of electricity in particular. During the past year the Board promoted the use of insulation materials to the extent that these sales now constitute approximately one-third of the appliance sales business. It also withdrew from the sale of direct heating appliances in line with its new objectives. In the appliance repair activity the Board considers, however, that as a matter of policy it should continue to provide this facility to all its customers primarily in the interests of safety and to reflect the Board's consciousness of its social obligations in this respect.
A change in the allocation of costs has been introduced in agreement with the Auditors as from 1979/80. This provides for the full recognition of all the costs on a measured basis, together with appropriate allowances which will be kept under review.
The result of the Appliance and Contracts Income and Expenditure Account for the year, on the changed allocation basis, is a deficit of £0.29 million.

STAFF RELATIONS:

The Board's fundamental objective is to provide an uninterrupted supply of electricity to the community at the lowest possible cost and negotiations to conclude a Comprehensive Agreement with all the nineteen trade unions represented in the Board are in progress to achieve this end. Every effort is made to ensure opportunity for advancement and job satisfaction for all the staff. The business of electricity supply involves constant and rapid technological advances and one of the important factors in the proposed Comprehensive Agreement is to gain the acceptance by the staff to such change without friction or interdisciplinary disputes and without excessive remunerative demands to implement it. It is hoped that the satisfactory conclusion of a Comprehensive Agreement in the E.S.B. will be a significant milestone in the field of staff relations in the industry.
The staff at the year end numbered 11,912 and the Board again thanks the staff for its contribution during the year.

(Signed) Charles T. G. Dillon, Chairman
Liam Boyd
J. Cohalan
Thomas M. Gilmartin
R. B. Godsil
D. Hatch
C. Kelleher
James J. Kelly
Gerard N. Power
J. A. Ryan
Anthony Ryder
John P. Wyley

(Signed) J. F. Williams, Secretary
31st July, 1980

Energy

GENERATION:

Production:
System demand required the production of 10,213 million units, an increase of 6.4% over the previous year.

The peak demand of 1971 MW was 1.9% higher and occurred on Wednesday, 16th January. The annual load factor was 59.3%

The pattern of demand growth during the year was variable with very large increases in demand occurring during the early part when there was a shortage of other fuels while in the last quarter demand was below the level of the previous year.

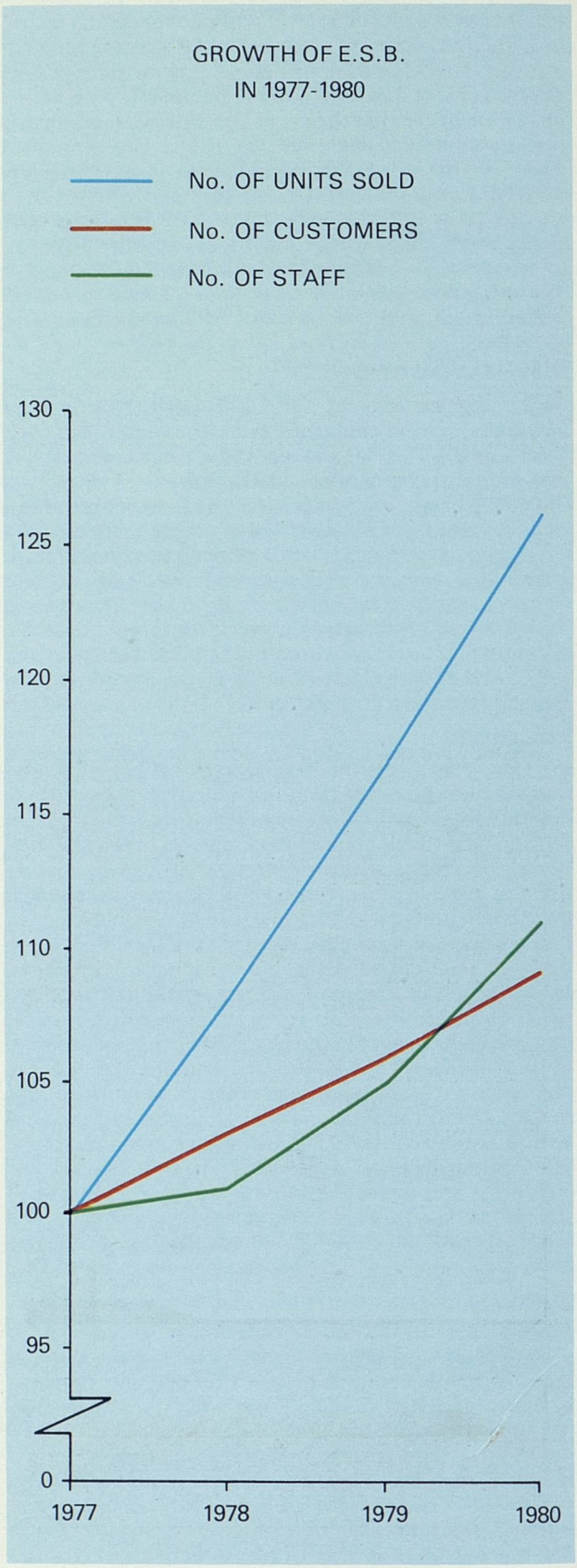
Fuel Sources:
The charts on page 7 indicate the various fuels used in the production of electricity over the last four years and the anticipated fuel usage over the next eight years. In the year under review, the percentage of electricity generated from oil declined compared with the previous years; this trend is expected to continue in future years with increased usage of natural gas, peat and coal, thus contributing to the national aim of reducing our dependence on oil.

Capacity:
A waste heat recovery boiler was commissioned in Marina and although this did not increase the total plant capacity, it improved the efficiency of use of the natural gas in Marina station. Two small sets (2 x 16 MW) in North Wall were taken out of service. The total installed capacity at 31st March, 1980 was as follows:

Hydro plant (conventional)	219 MW
Hydro plant (pumped storage)	292 MW
Steam plant (sod peat)	117.5 MW
Steam plant (milled peat)	330 MW
Steam plant (oil)	1656 MW
Steam plant (coal)	15 MW
Steam plant (natural gas)	120 MW
Combustion turbine plant (natural gas)	85 MW
Combustion turbine plant (oil)	28 MW
	2862.5 MW

Efficiency of Conversion:
The overall thermal efficiency of conversion of primary energy to electricity was 32.9% compared with 32.1% last year.

Hydro:
Hydro inflow was 130% of normal and was only 1.7% below that of the wettest year in the Board's history. Owing to the demarcation dispute in Poolbeg and the delay due to industrial relations problems in utilising the combustion turbine in Marina, the hydro storage lakes had to be operated at levels somewhat below normal. A slippage of the banks on the Ardnacrusha head race was a contributory factor to the low level of Lough Derg. It was not possible to restore these levels until the Autumn.



Maintenance of Supplies:
The problems referred to in the last paragraph led to considerable difficulty in maintaining normal supplies up to the end of October. It was necessary to disconnect supplies to customers on twelve days. Voltage was reduced on 97 days, including the days of load disconnection, and on five other occasions some load was automatically disconnected for short periods owing to sudden loss of plant.

Interconnector:
The North/South interconnection was again not available this year.

SALES:

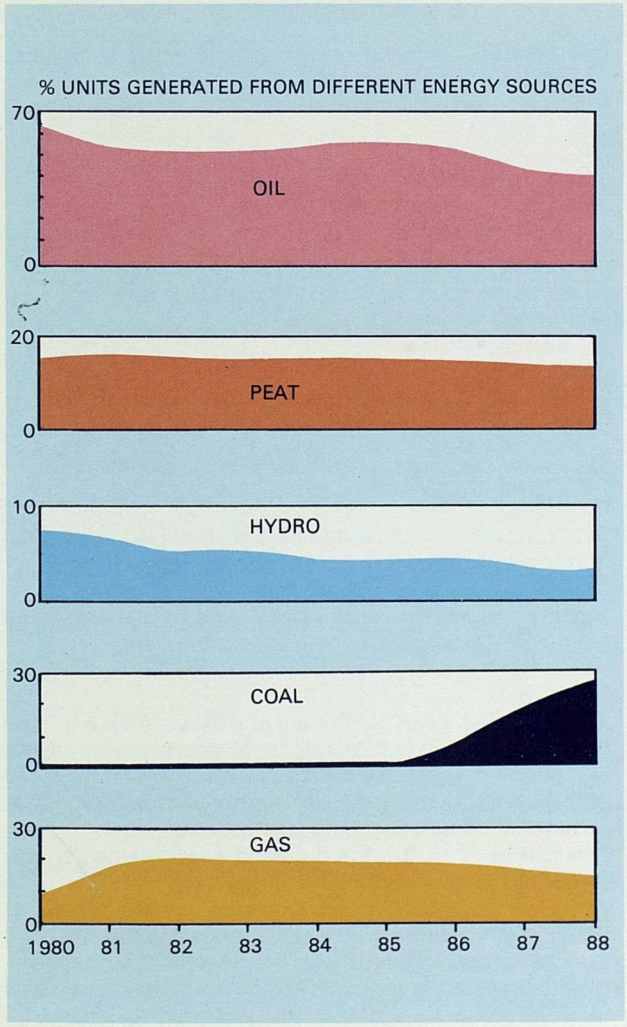
Outcome:
Total electricity sales for the year increased by 7.5%. Under the influence of such factors as the shortage of other fuels, mild weather and energy price increases the rate of growth varied from +13.2% in the first quarter to —0.7% in the final quarter of the year.

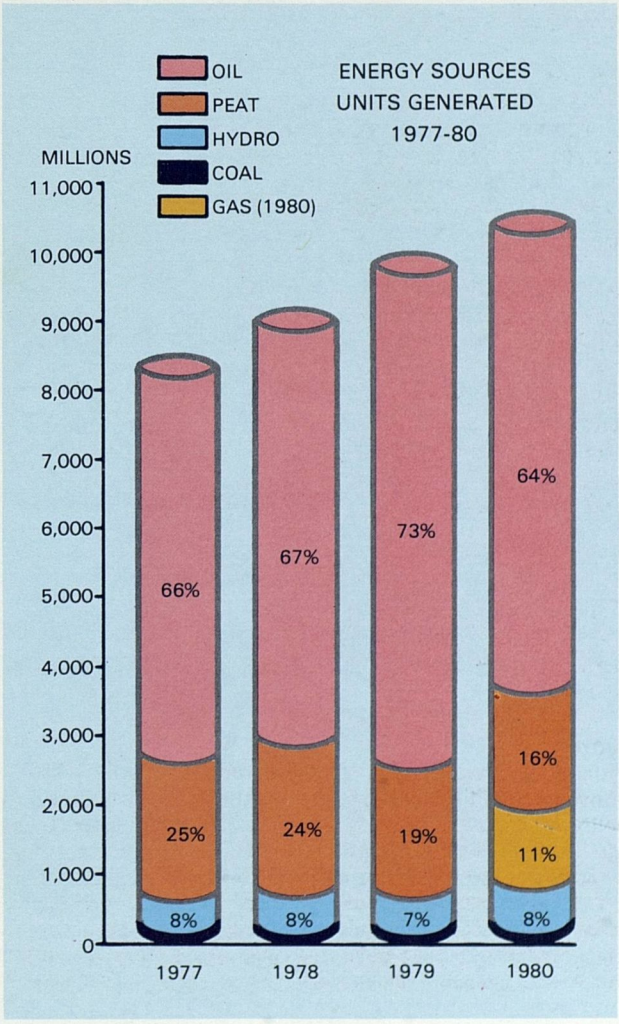
Industrial, Commercial/Domestic:
Domestic sales increased by 5.8%, commercial sales by 6.1% and industrial sales by 10.2%. Continuing economic growth, particularly in the industrial sector, was the main determinant of increased sales.

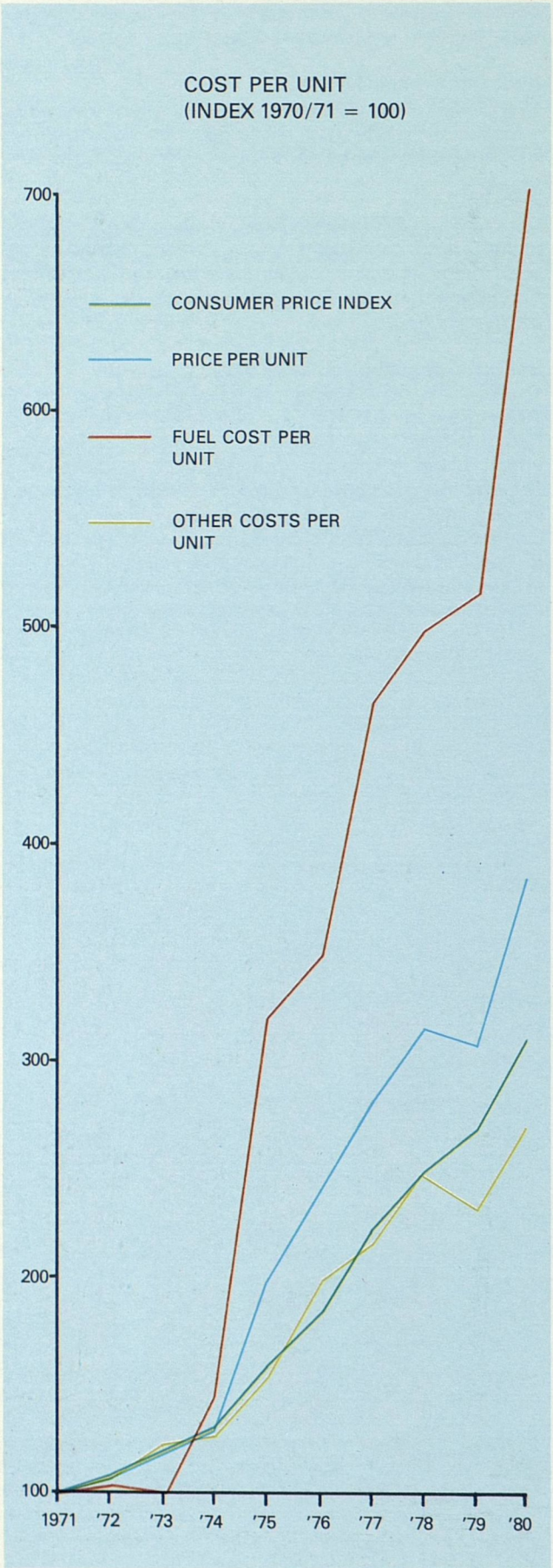
Share of Energy Market:
The Board continued to increase its share of the energy market; electricity now accounts for approximately 31.5% of total energy consumption in the country.

Prices:
There was a significant increase in electricity prices due to the world upheaval in energy markets. During the year approval was received from the National Prices Commission to the reintroduction of the Fuel Cost Variation Clause.

Energy Conservation/Load Management:
The system load factor improved from 56.8% in 1978/79 to 59.3% in 1979/80. The Energy Conservation and Load Management Programme which is being actively promoted contributed to this. The effectiveness of this programme is being monitored continuously through load and market research.
One aid to restraining peak demand was a special tariff for some large loads which customers agree to interrupt at times of excessive demand on the system.
Another was the Demand Manager. This device may be







installed by customers on Maximum Demand rates. It controls demand at peak times by shedding deferrable load in stages so that a pre-determined demand is not exceeded. It was developed with the help of the National Institute for Higher Education, Limerick.
Other influences which helped to improve the load factor were interruptions in the availability of other fuels, favourable changes in comparative prices and a mild winter.

SUPPLEMENTARY SOURCES:

Hydro:
Essentially, all the country's sizeable and economically attractive sites have been developed but other possible developments on these rivers are under active consideration; for example, the construction of a 600 kW set on the Shannon at Parteen is nearing completion and, due for commissioning in the Autumn of 1980. Preliminary studies for a development on the Ballisodare river have begun. The Board has also decided on a programme of investigation to identify sites suitable for hydro development which may be as small as 250kW. A number of technically attractive sites for pumped storage schemes had been identified, and geological investigations were in hands.

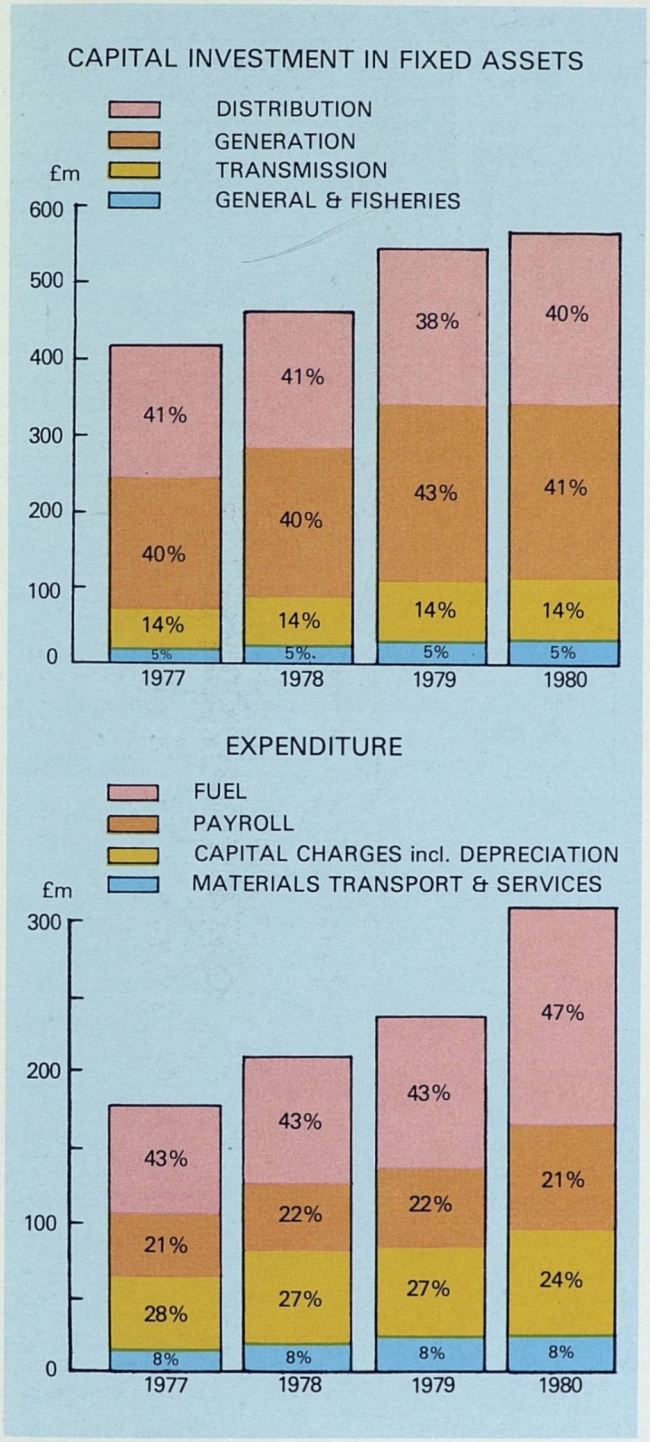
Wave Power:
The potential of wave power for Ireland is still under investigation and the Board continues to monitor developments worldwide and participates in the international tests in Japan. Also, plans are in an advanced stage to set up wave measurement stations in Irish waters.

Tidal Power:
As mentioned in the introduction, a scheme for hydro power extraction in the Shannon Estuary is being examined to ascertain its viability.

Wind Power:
The Board continued to monitor developments in wind power and a decision has been taken to instal and test-operate 3 medium-sized units.

Biomass:
Test runs are in progress in all sod peat fired stations to burn timber waste in various forms.
Short rotation forestry grown in Mayo and Offaly is expected to be harvested in 1983/84 for experimental burning in existing 5 MW stations.

Irish Coal:
Test work has been completed and Ministerial approval has been granted in principle to the construction of a 45 MW plant at Arigna based on the atmospheric fluidised bed technique to burn very high-ash crow coal. The scheduled completion date is 1985/86.
The Board is to fund a fluidised bed test rig for the National Institute for Higher Education in Limerick to carry out combustion and emission control testing of other Irish coals such as high sulphur anthracite. The Board has applied for E.E.C. funding for this project.
Surplus domestic coal slack also was burned on a trial basis in one of the smaller turf stations.



Finance

SUMMARY OF RESULTS:

Revenue:
Revenue Income was £300,469,681, an increase of £77,169,201 over the previous year while expenditure at £309,595,161 showed an increase in the year of £79,452,392.

Summarised figures are as follows:

	Year Ending 31st March, 1980 £	*Preceding Year £
Expenditure:		
Fuel	144,877,179	98,982,157
Payroll and other direct costs	89,537,437	69,078,283
Capital Charges including depreciation	75,180,545	62,082,329
	309,595,161	230,142,769
Revenue Income	300,469,681	223,300,480
	9,125,480 (Deficit)	6,842,289 (Deficit)

*Restated in line with note 13(b) of Schedule N.

After taking account of the trading and consultancy activities results and deducting expenses on new borrowings, the result for the year was a deficit of £9,310,964 which increases the total deficit carried forward to 1980/81 from £11,937,472 to £21,248,436.

Capital:
Expenditure in the year was £92,293,086. After allowing for retirements of assets of £2,478,215, investment in capital assets increased to £689,872,904 (see schedule F).

Assets brought into commission during the year were £37,645,298 bringing the total value of assets in service at year end to £568,140,225. Work in progress was £121,732,679.

RAISING OF CAPITAL:
The continued expansion of the Board's activities requires a heavy investment of capital annually. In the last year the Board's capital programme was financed from abroad (project finance from Banks and other Institutions and private placements with Banks) and from its own internal resources, including charge for depreciation of assets, supply contributions and proceeds of sales of retired capital assets.

WHERE THE MONEY GOES:
One of the charts on this page analyses the total revenue expenditure for each of the last four years indicating the proportions spent on fuel, payroll, capital charges and materials, services, etc. The most significant development in the last year was the dramatic increase in expenditure on fuel (i.e. from 43% to 47%).
The other chart analyses capital expenditure over the same period under Generation, Transmission, Distribution and General/Fisheries.

GOVERNMENT WORKING PARTY:
The agreed report from the Working Party established by the Minister for Industry, Commerce and Energy to review and recommend on ESB Accounting Practice referred to in last year's Annual Report, is still under consideration. The report discusses the restoration of adequate internal resources to assist in the financing of the capital development programme.

In March, 1980, the Accounting Standards Committee issued an accounting standard on Current Cost Accounting (SSAP 16). The implications of the standard are being examined by the Board; the requirement is that the standard should apply to the Board's accounts for the year 1980/81.

PRICES COMMISSION:
The delay in obtaining price increases arising from long intervals between submission of proposals and eventual approval is referred to earlier in this Report. This was a major factor in the unsatisfactory outcome for the year which is a very serious setback to the Board's efforts to balance income and expenditure.

Construction

GENERATING STATIONS

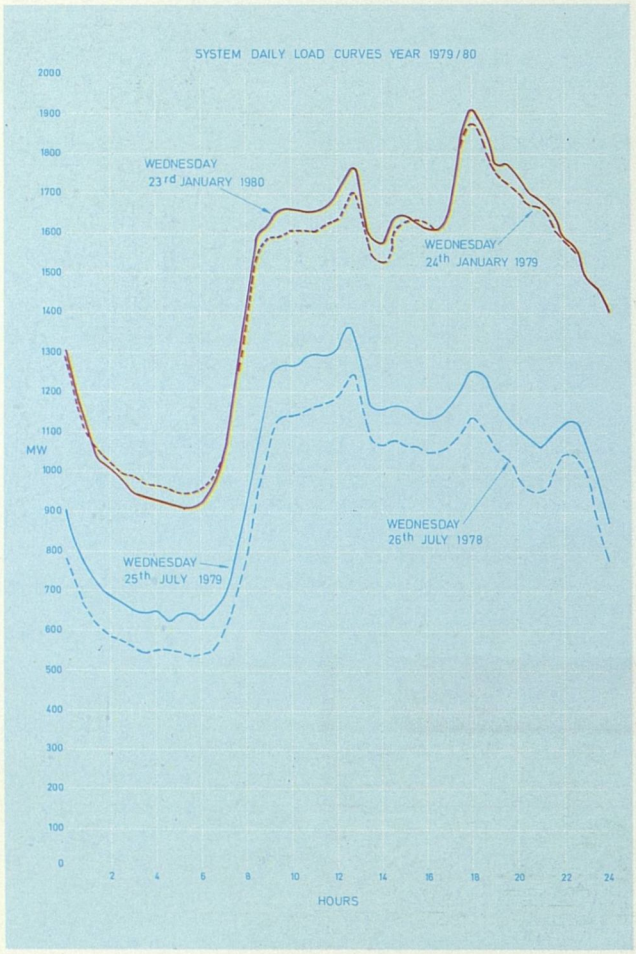
Aghada Generating Station, Co. Cork (Gas Fired)
1 — 270 MW steam set. The construction work was completed. Commissioning of the plant was in progress, and the plant is due to go into commercial operation in October, 1980 on schedule.

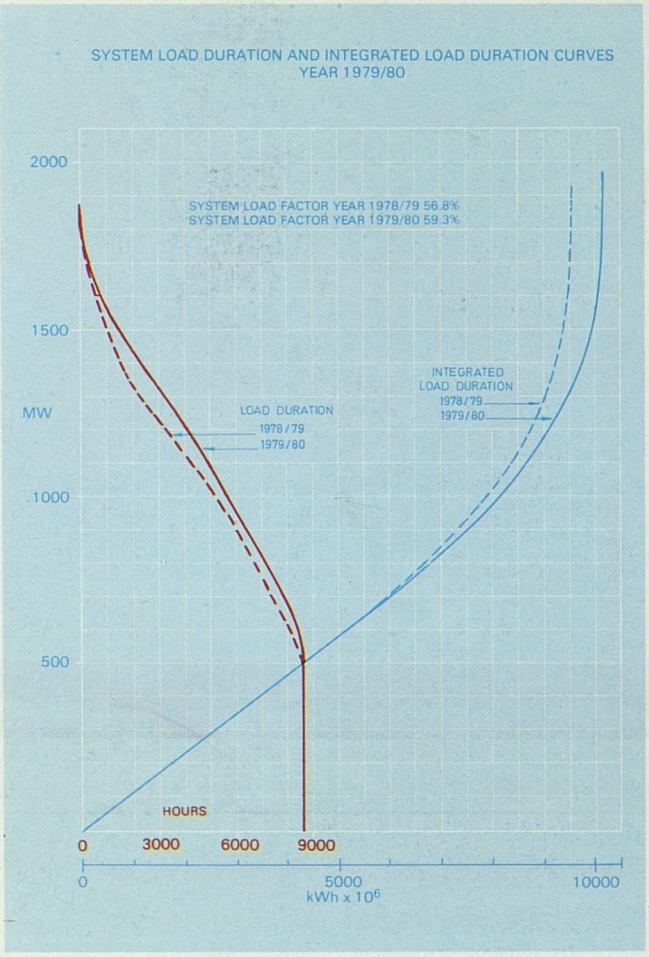
Aghada Generating Station Extension, Cork (Oil Fired)
3 — 85 MW combustion turbines. Planning permission was received, site construction and plant manufacture was as programmed. These combustion turbines are scheduled for operation 1981/82 for numbers 1 & 2 and 1982/83 for number 3.

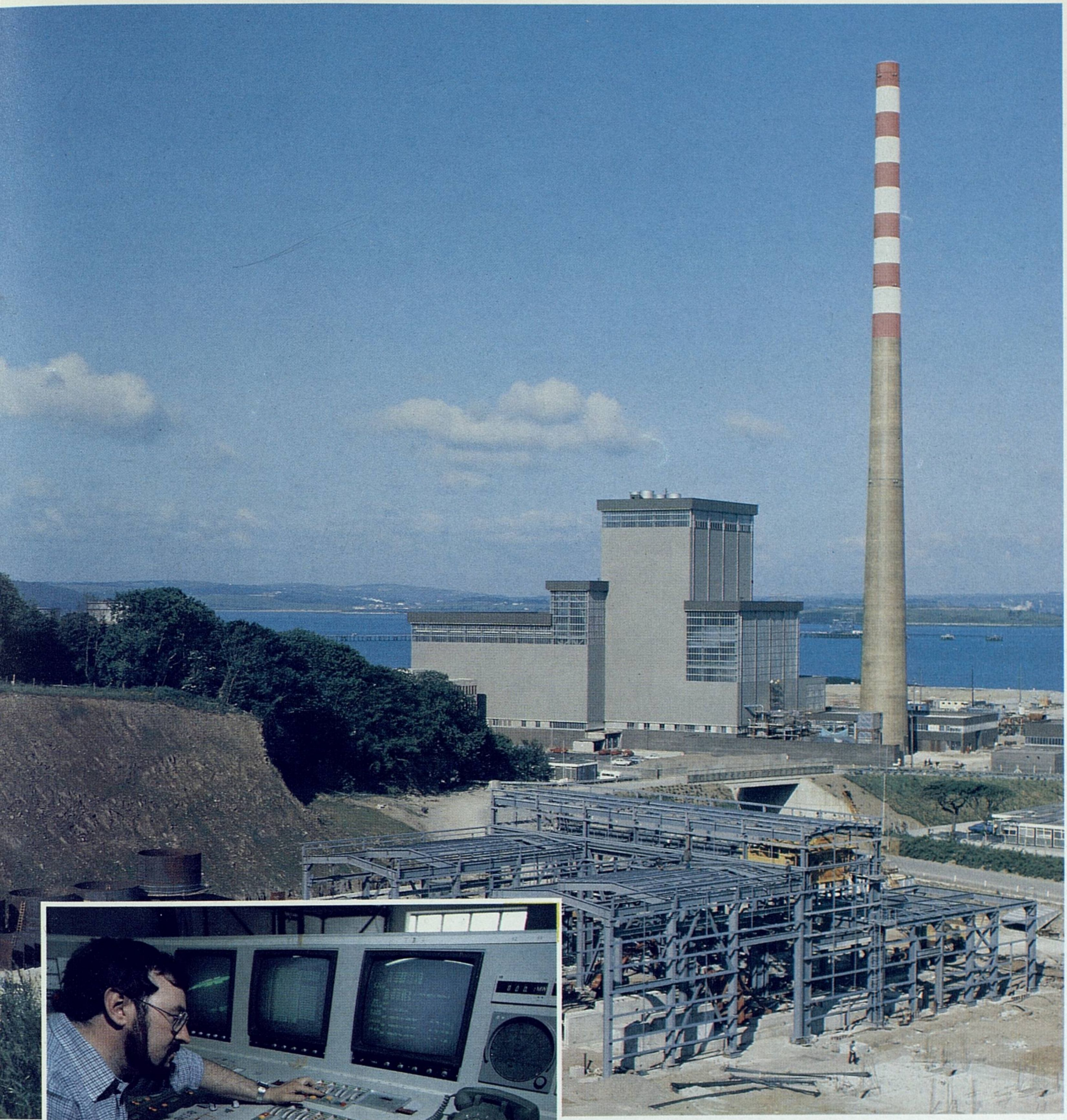
Shannonbridge Generating Station Extension, Co. Offaly (Milled Peat Fired)
1 — 40 MW set. (The capacity of the existing station is 80 MW). Work started on main foundations and blending bunker. Orders were placed for major auxiliary plant. The extension is due to be completed in 1982/83.

Lanesborough Generating Station Extension, Co. Longford (Milled Peat Fired)
1 — 40 MW set. (The capacity of the existing station is 60 MW). Civil engineering work has commenced. Major auxiliaries for main plant were ordered. Extension is due to be completed in 1983/84.

Moneypoint Generating Station, Co. Clare (Coal Fired)
2 — 300 MW sets. The site development contract progressed to programme and the main foundation contractor commenced work. The design and selection of plant systems were proceeding. The scheduled completion dates are 1985/86 and 1986/87. Ministerial approval was received to the installation of No. 3 set of 300 MW for commissioning in 1987/88.











The Aghada gas-fired Generating Station with, in foreground, the combustion-turbine facility under construction. Insets show staff at work in the station.

Parteen Weir, Co. Tipperary (Hydro)
0.6 MW set. Construction was nearing completion. The set is due to be commissioned in Autumn 1980.

Marina Generating Station Combined Cycle Plant, Cork (Gas Fired)
(The capacity of the existing station remains 2 — 30 MW sets, 1 — 60 MW set and 1 — 85 MW combustion turbine).
The heat recovery boiler was commissioned and has operated successfully. The boiler coupled with the combustion turbine already commissioned and an existing 30 MW station set form a combined cycle unit. This is the first combined cycle unit in operation in the Board's system and is one of the largest combined cycle plants of its type in the world. Its efficiency at 40.6% is exceptionally high.

North Wall Generating Station Extension, Dublin (Oil Fired)
2 — 100 MW Combustion Turbines. The Minister for Industry, Commerce & Energy approved the construction of this extension during the year.
The combustion turbines were ordered and the purchase of a heat recovery boiler was in hand. Facility to allow the use of treated residual heavy fuel oil is being designed. One of the combustion turbines combined with the heat recovery boiler and the existing steam turbine sets will operate in a combined cycle unit. The scheduled operational dates are 1982/83 for No. 1 and 1983/84 for No. 2.

DISTRIBUTION:

Total direct expenditure in the Distribution area during the year was £52m. of which some 85% was spent in Ireland.
This large expenditure was incurred in the construction of new networks to supply an additional 27,792 customers during the year, and also in the operation, maintenance and renewal of existing networks, some of which are fifty years old. Investment buoyancy in the industrial sector was reflected in the number of additional industrial customers: 421, 15.7% more than in the previous year.

Rural Electrification:
Work is continuing on providing electricity to applicants who qualify for supply under the terms of the Electricity (Supply) (Amendment) Act 1976. Approximately 1,160 houses were connected under this scheme at the end of the year and construction work was in hand on making supply available to a further 240 premises.

TRANSMISSION:

400kV Transformer Stations:
Design work has commenced on the Board's first 400kV stations. The initial 400kV developments will include three stations, two of which will be in the Dublin area and one at Moneypoint, Co. Clare. The first of these is due for service in 1985/86.

220kV Transformer Stations:
A new station was commissioned at Cashla, Co. Galway, providing major reinforcement to the Galway, Mayo and Roscommon areas. New transformers were commissioned at Finglas, Co. Dublin, and Great Island, Co. Wexford. The transformers at Finglas are the Board's first 220/110kV auto-transformers, which offer significant cost savings over the more conventional units.

110kV Transformer Stations:
The 110kV system was directly earthed. Reconstruction of Haulbowline Station in connection with increased supply to Irish Steel was completed. Transformer capacity was increased in Dungarvan, Mullingar, Rathkeale and Thurles. Work had commenced in Galway, Kilkenny, Newbridge and Letterkenny.

Lines:
Survey work is in progress on the first 400kV line, from the new Generating Station at Moneypoint to the Dublin area — a distance of 230km.

Construction Work:
Construction and Design work continued on new 220kV and 110kV stations and on associated lines and cables.

PREMISES:

Work commenced last year on the 111,000 sq. ft. extension to Head Office on the East James' Street site. This will be a five storey building over basement and will house the new National System Control Centre, and four floors of offices which will be integrated with the existing Fitzwilliam Street building.

The entire building has been designed to provide maximum utilisation of the Head Office site as well as flexibility to meet changing accommodational and environmental needs. It will be fully air-conditioned using a heat recovery system for energy conservation based on the concept of integrated environmental design.

During the year a new Operations Centre was completed at Tralee. The Hydro Generation Regional Offices at Ardnacrusha were extended.

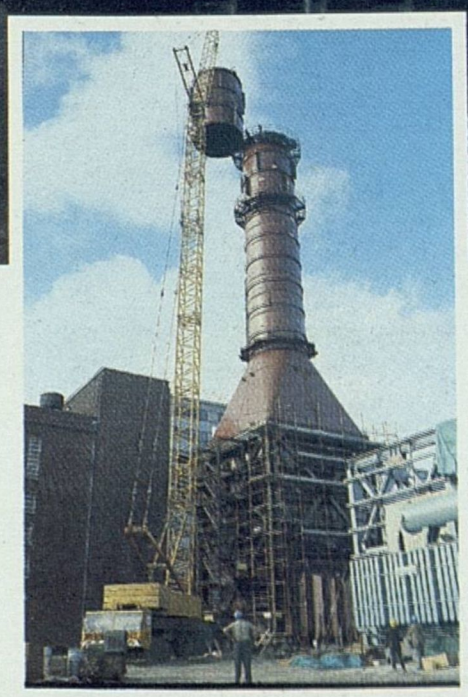
Work will commence shortly on the provision of a new District Headquarters in Cork. Planning is proceeding for a new District Headquarters in Limerick, Southern Generation Regional Offices at Marina, Cork, Line Training School at Portlaoise, and canteen/workshop facilities at Shannonbridge Power Station.

During 1979/80 seven new depots were completed. Work is in progress on the construction of a further nine depots throughout the country.

EMPLOYMENT:
The total number of E.S.B. staff engaged on work related to construction projects was in excess of 3,000 at the end of the year. In addition, it is estimated that a further 600 people were employed by the various contractors on the building of Power Stations, Office Premises, etc.

Ancillary Activities

Trading:
During the past year the objectives of the Trading Activities were increasingly directed towards the needs of energy conservation and the wise use of energy. This



The gas-fired combustion turbine at Marina Generating Station in Cork City. Inset: the last stage in the erection of the stack.

imposed its own constraints on the activities, particularly on Appliance Sales where there was no promotion or advertising of appliances. Early in the year, as the fuel crisis grew, the sale through E.S.B. shops of direct acting space heaters (fires, convectors, etc.) was discontinued.

Appliance Sales:
Turnover at £7,840,748 resulted in a net deficit of £109,409. Over 15% (£1.2 million) of the turnover was due to sale of insulation materials and services. These materials and services were promoted strongly through all media and E.S.B. service centres. It is estimated that over 12,000 homes were insulated during the year as a result of sales by the Board alone.

Appliance Repairs:
Turnover at £1,114,812 resulted in a net deficit of £113,373. Prices for Appliance Repairs are controlled by the National Prices Commission and it has not been possible to recover all costs through pricing. E.S.B. charges for repairs are now some 50% cheaper than the highest obtaining in the private sector.

Installation Contracts:
Turnover at £3,335,557 resulted in a net deficit of £65,912. The Board's activity in this area is now largely confined to the higher technology areas of the market. Work associated with Load Management and Energy Conservation was also carried out. Activity also continues to support technical standards of safety, workmanship and the evaluation of new work methods.

Costings:
During 1979/80 a new system of costing and apportionment was applied to the trading activities to reflect their new roles and their contributions to the Board's main business.

Fisheries and Conservation

The Board spent £479,000 on its fisheries activities during the year. As a result of record catches of eels and favourable prices the net cost of the fisheries and conservation activities was £282,000.

Because of the very poor salmon stock position, the Board suspended its commercial salmon fishing in the Shannon during the 1979 season and it was again decided not to fish in the 1980 season. The Board has now ceased fishing in all rivers where it has commercial rights reflecting the very poor state of those stocks particularly in the Erne and in the Clady/Crolly. While spring fishing in the Shannon is reported good at the beginning of 1980, it is too early to come to any conclusion about the long-term state of the salmon stocks. For this reason the Board is continuing to exercise restraint in salmon fishing and to urge a continuation of national conservation efforts.

On the river Erne the Board is co-operating closely with the Joint Protection Committee involving the Ballyshannon and Northern Ireland Fisheries Conservancy Boards. The consultant's report on the Erne catchment,

NUMBER OF CUSTOMERS AND ELECTRICITY SALES

District	No. of Customers at 31st March		Electricity Sales Units sold in year ended 31st March	
	1980	1979	1980 (millions)	1979 (millions)
Athlone	58,263	56,818	343.4	297.9
Cork	117,519	114,502	1,118.0	1,017.6
Dublin City	143,934	143,071	1,280.2	1,235.0
Dublin North West	125,227	119,294	1,126.3	1,057.0
Dublin South	66,418	64,456	544.3	514.9
Dundalk	80,938	78,699	844.6	776.7
Galway	61,762	59,607	377.4	336.1
Limerick	93,971	91,505	821.1	783.5
Portlaoise	69,651	67,810	526.7	499.9
Sligo	93,716	91,195	499.8	463.1
Tralee	49,944	48,477	329.8	305.7
Waterford	82,085	80,202	748.7	677.9
Total	1,043,428	1,015,636	8,560.3	7,965.3

GROWTH OF ELECTRICITY SALES AND NUMBER OF CUSTOMERS

Year Ended 31st March	Units Generated (and purchased)* Millions	Units Sold to Customers Millions	Revenue from Electricty Sales Thousands	Average Price per Unit sold Pence	Total Customers
1930	60.9	43.2	478	1.108	48,606
1940	407.0	318.6	1,946	0.612	172,545
1950	784.8	626.2	4,774	0.763	310,639
1960	2,096.0	1,692.2	14,724	0.871	610,946
1970	5,245.7	4,411.6	39,400	0.892	786,500
1971	5,921.0	4,862.1	44,082	0.907	805,736
1972	6,234.2	5,271.7	51,750	0.982	818,516
1973	6,749.1	5,705.1	60,321	1.057	845,119
1974	7,253.1	6,152.0	73,063	1.188	873,764
1975	7,298.7	6,153.1	111,261	1.808	901,000
1976	7,534.6	6,259.0	136,277	2.177	931,469
1977	8,160.5	6,783.2	173,429	2.557	959,428
1978	8,828.4	7,329.9	210,029	2.865	986,256
1979	9,602.7	7,965.3	222,768	2.797	1,015,636
1980	10,213.6	8,560.3	300,024	3.505	1,043,428

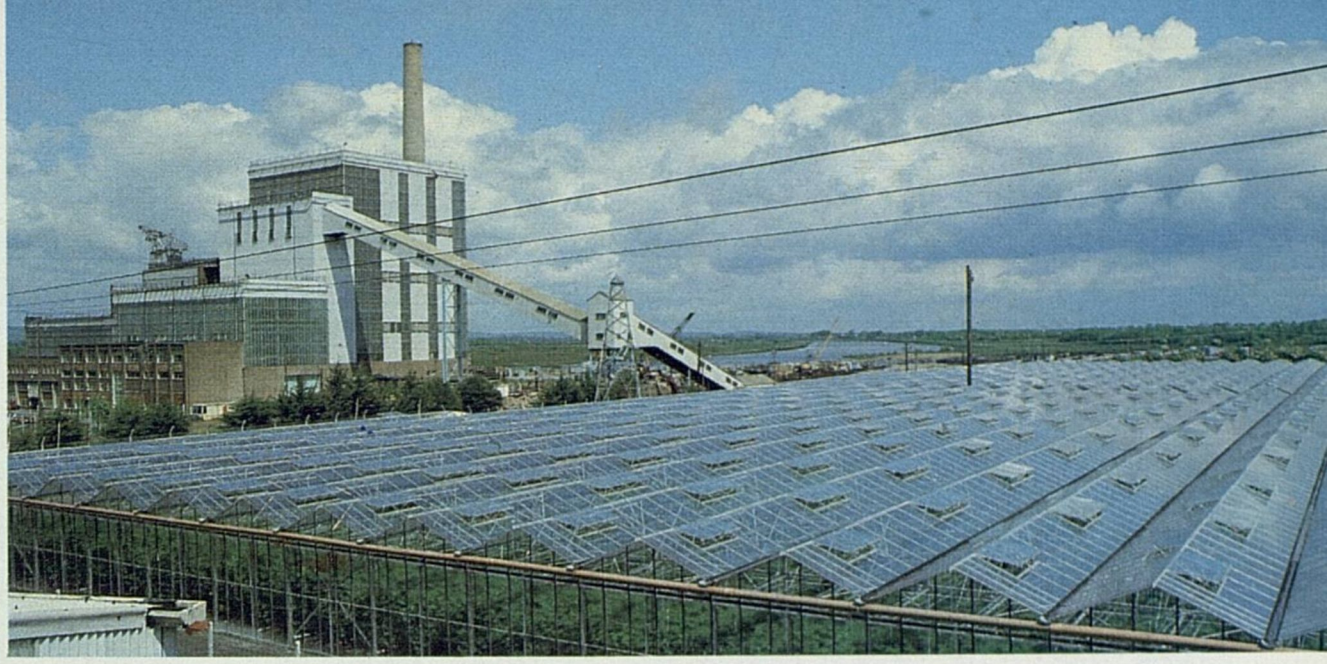
*Excluding units absorbed by storage pumping.

ANALYSIS OF UNITS SOLD

Class of Supply	Year ended 31st March 1980 (millions)	Year ended 31st March 1979 (millions)	Increase (millions)	% Increase
DOMESTIC				
General Supply	3,412.1	3,207.8	204.3	6.4
Night Rate	187.6	195.8	—8.2	—4.2
	3,599.7	3,403.6	196.1	5.8
COMMERCIAL				
Lighting	270.2	259.6	10.6	4.1
Heating, Cooking and Waterheating	361.6	353.0	8.6	2.4
Motive Power	242.9	246.9	—4.0	—1.6
Night Space Heating	210.9	208.9	2.0	1.0
Public Lighting	102.5	99.4	3.1	3.1
Maximum Demand	301.2	225.8	75.4	33.4*
Miscellaneous	233.1	230.5	2.6	1.1
	1,722.4	1,624.1	98.3	6.1
INDUSTRIAL				
Maximum Demand				
High Tension	2,386.7	2,133.2	253.5	11.9
Low Tension	706.9	658.7	48.2	7.3
Miscellaneous	144.6	145.7	—1.1	—0.8
	3,238.2	2,937.6	300.6	10.2
TOTAL	8,560.3	7,965.3	595.0	7.5

*The increase arises mainly from transfer to maximum demand of customers whose consumption was recorded in previous years under other headings; and from the connection of new customers on maximum demand.

At Lanesborough, tomatoes are harvested in glasshouses to which the heat is supplied from the adjoining Generating Station.



prepared on behalf of the Department of Foreign Affairs, the office of the Secretary of State for Northern Ireland and the European Economic Community recommends a large scale smolt rearing station on the river Erne and is supported by the Board. An effort is being made to obtain E.E.C. funding for this cross-border project which is an urgent necessity.

During the year, the stocks of salmon in the river Lee continued to improve. It is clear that the Lee has not suffered the same damage from sea netting as other rivers and it is obvious that the rearing station at Carrigadrohid is continuing to have great success as a rehabilitation measure. The smolts from Carrigadrohid have been exceptionally good. Cage rearing of smolts in the reservoir is now being undertaken.

Encouraged by the success of the commercial sea farming project being carried out in association with Udaras na Gaeltachta, the Board decided to expand its capacity to produce additional salmon smolts for the project. It has also been decided to develop a separate commercial venture in salmon farming in the sea. A consultant's report is awaited in connection with the development of rearing eels in the warm water discharges from the Board's Generating Stations.

In accordance with the new Fisheries Act a national administration is being established and the Board looks forward to the closest co-operation with the new administration.

The Board regrets, however, that the Local Government Water Pollution Act, 1977 is not yet in full operation. The Board has continued its involvement in connection with water pollution and has lent its support to efforts made to control this serious problem.

The Board's Annual Fisheries Report, published separately, deals with these activities in more detail.

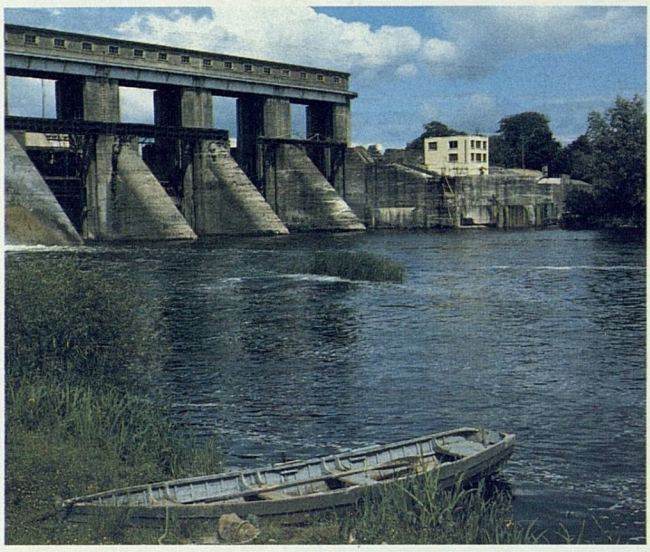
Staff

Manpower:
The number of E.S.B. employees at 31st March, 1980 was 11,912 compared with 11,297 at 31st March, 1979.

This increase in staff for the second consecutive year was necessary to meet the continued expansion in the level of E.S.B. activities.

In the Manpower Planning area, the emphasis has been in improving the alignment of work programmes and the availability of key personnel. Medium-term staffing projections have been compiled based on work plans and associated requirements to 1984. Among the areas needing management action were the scarcity of technical personnel in short supply nationally and the necessity to increase the intake of trainees to meet future requirements.

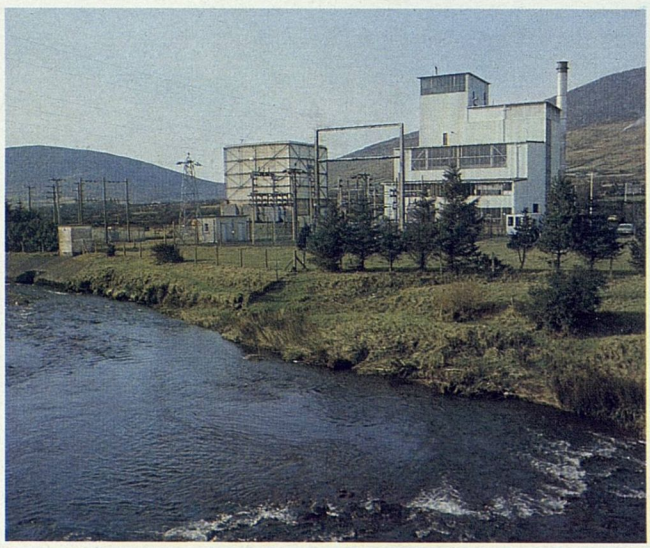
During the year various studies and analyses of staffing trends, manpower distribution and productivity were undertaken to improve the quality of management information as an aid to manpower planning and control.



At Parteen Weir, on the Shannon, a new 600 kW hydro generating unit was in course of installation.



The existing milled-peat-fired station at Shannonbridge, is being extended by 40 megawatts.



Extensive experiments in the use of biomass are being carried out in the hand-won peat-fired generating station at Cahirciveen.

Training and Development:
The E.S.B. continues to train most of the craft and skilled personnel necessary for its business. Some 4,300 staff attended internal courses and 400 attended external courses. Plans for fitting out a new central training centre in Lower Mount Street are well advanced and the new centre will be in operational by early 1981.

In addition to training for its own needs, the E.S.B. carried out Consultancy Training for overseas power utilities, AnCO/I.D.A. and Departments of Health and Education.

Recruitment:
During the past year the E.S.B. recruited nearly 1,000 staff as replacements and to cover expansion and it thus contributed significantly to the provision of employment for school leavers and University graduates in Engineering, Commerce and Business Studies.

The E.S.B. in advertising campaigns in Great Britain attracted home some skilled technical personnel. It also got some staff from the campaign run by the National Manpower Service, Department of Labour.

Vacation work on technical projects was given to third year engineering under-graduates, and work was also provided for arts and commerce under-graduates in the Accounting Administrative area. This is an important bridge between universities and industry.

Liaison with the engineering faculties in the universities was improved during the year and both sides are confident that this will be mutually beneficial.

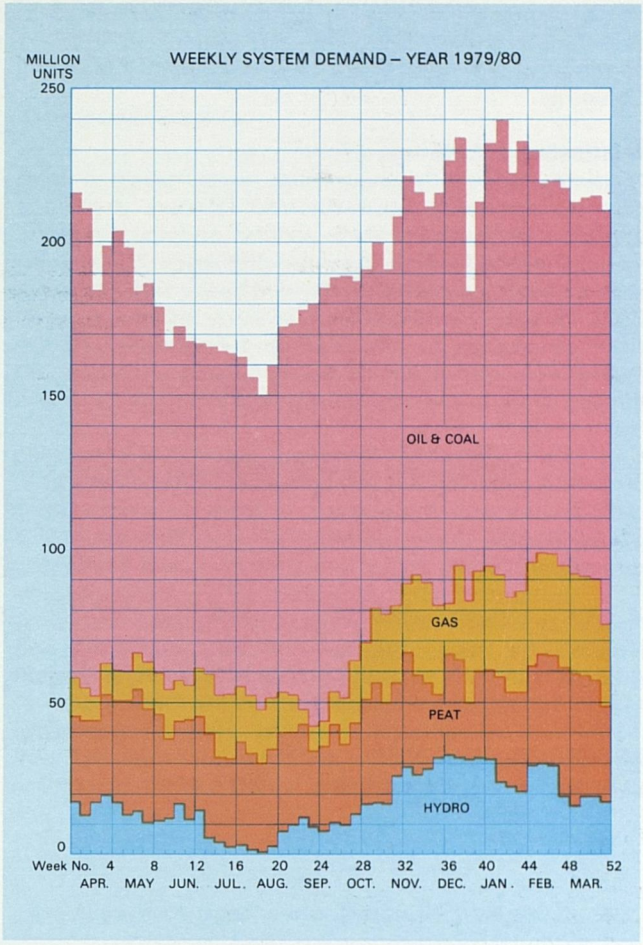
The year saw the entry of the first female craft apprentices and the recruitment of the first female engineering technician. The E.S.B. welcomes this extension of the employment of women in its technical area of work, traditionally the preserve of men.

Industrial Relations:
Agreements were concluded with the vast majority of categories. The joint Industrial Council, under the Chairmanship of Mr. Con Murphy, again played a major role in the conclusion of these agreements.

Limited interruptions of supply took place due to a difficult inter-union demarcation dispute at Poolbeg Power Station. This proved intractable over a long period despite direct talks with and between the unions involved, and the best efforts of the joint Industrial Council and the I.C.T.U. The dispute was concerned with changing technology.

The increasing pace of change is now a formidable challenge calling for enlightened agreement between the Board and the unions representing staff. Proposals in this regard will form part of comprehensive discussions with Trade Unions.

The final stages of a complex programme of job evaluation in the technical and supervisory categories was reached by a joint management/union panel, and negotiations with the unions on the outcome of the evaluation were in prospect. As a direct consequence of



The E.S.B. and the Irish Goods Council organised two exhibitions last year for manufacturers to encourage production in Ireland of items at present imported.



its personnel experience in job evaluation, the E.S.B. secured and completed a substantial consultancy contract from the Saudi Consolidated Electricity Company.

Medical and Welfare:
Medical and Welfare continue to be given a high priority. Specialist Staff Welfare Officers provide a confidential service to staff, widows and pensioners to assist them with their personal problems. There were extensions to the benefits provided by the self-financing Staff Medical Provident Fund which is administered by trustees elected by the staff and nominated by the Board. Flu immunisation and mediscan were again availed of by a large number of staff.

Retirement Planning Seminars have been running since the early 1970's and have catered for over 800 to date. Because of the success of these seminars other organisations have availed of the service on a consultancy basis.

Social and Cultural:
Support for staff initiatives in social, sporting and cultural activities was maintained. One major project was a development by the staff in the Cork region of social and recreational facilities along the lines of SPORTSCO in Dublin which is supported by contributions from the Board and the staff.

Consultancy

The Board continued to carry out Consultancy contracts both at home and abroad during the year. About 100 members of the staff in a variety of categories were assigned to this work. A note of some of the larger assignments follows.

Bahrain:
The Consultancy services to the Ministry of Works, Power and Water, Electricity Directorate, continued during the year. Work on the contract covering the secondment of staff to key positions within the organisation to develop management and accounting systems and to develop and train manpower was practically completed. A new contract for the monitoring and maintenance of the systems was discussed and agreed.

The ongoing assignment for the extension of the transmission network continued and the second phase of the progrmme was largely completed during the year. Work commenced on the third phase of the programme, which includes uprating of the system to 220kV operating voltage.

Progress continued on the new System Control Centre. Contracts had been placed and the building, equipment and engineering work was in progress.

This year the E.S.B. exported 66 tons of eels to Northern Europe.



Saudi Arabia:
Supervision of the construction, acceptance of plant and commissioning is nearing completion on the two Regional Electrification plants at Al Baha and Al Kharj and the majority of the work will be completed in 1980.

An organisation and job evaluation project for the Saudi Consolidated Electric Company in the Eastern Province was completed during the year and further projects are under discussion.

Lesotho:
Senior management personnel are on secondment to the Lesotho Electricity Corporation, funded under the Department of Foreign Affairs Bilateral Aid Programme. In addition, the E.S.B. commenced work on the planning and design of a rural electrification scheme for the Hololo Valley, the construction of which will be supervised by the E.S.B. staff using materials/ equipment manufactured in Ireland.

Training:
Training of staff for overseas power utilities continued during the year. Thirty-two Saudi Arabian technicians received training in various aspects of electricity production. A further group of seven technician trainees from Saudi Arabia are detailed to begin a technical training programme shortly. Thirty-two plant operation trainees from the National Electric Power Authority of Nigeria completed a 6 months training programme — bringing to one hundred and twenty-one the number of Nigerian personnel trained by the E.S.B.

Irish Assignments:

The Board continued to provide consultancy services in areas where it had unique and specialised knowledge.

Courses and guest lecturers were provided for AnCO and the I.D.A. Board staff did specialised consultancy work for Irish Cement Ltd., Brown Boveri Ltd., Macardle Moore Ltd. and Merck, Sharp and Dohme Ltd.

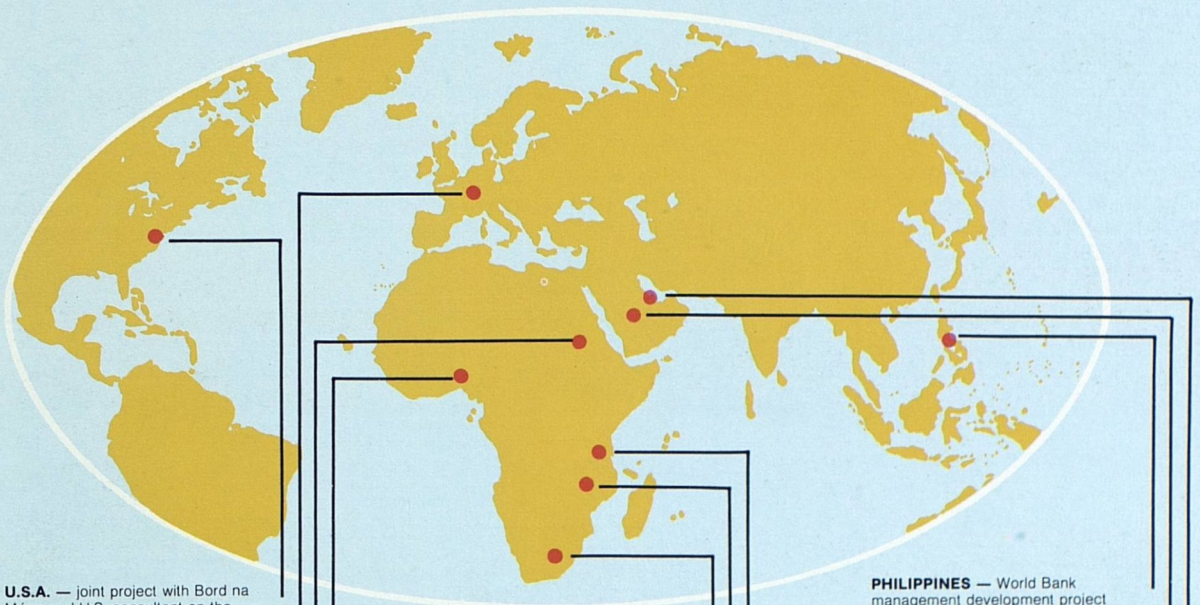
Organisation and Methods services to a Regional Health Board were completed.

Social Responsibility

The concept of the Social Responsibility of business is one about which there is a growing public awareness and discussion. The Board is fully committed to a progressive policy of responsiveness to the wider social needs and concerns of the community as is evidenced by its work in the following areas:—

Environment:
The environmental impact which the design and siting of its generating stations and power lines can have, is

CONSULTANCY WORLDWIDE



U.S.A. — joint project with Bord na Móna and U.S. consultant on the development of peat technology in the United States.
SWITZERLAND — involvement with Swiss consultant on power station design and construction.
SUDAN — organisational development and manpower training.
NIGERIA — training of thermal power station staff.

LESOTHO — provision of senior management personnel to the Electricity Corporation, also planning and design of a rural electrification scheme.
MALAWI — training survey completed and training commenced.
TANZANIA — training of management and supervisory staff.

PHILIPPINES — World Bank management development project completed.
SAUDI ARABIA — supervision of construction, acceptance of plant and commissioning of two regional electrification plants. Organisation and job evaluation for electricity company in the Eastern Province.
BAHRAIN — transmission network extension, new system control centre, management/accounting.

fully recognised. The Board's policy is to adopt good codes of practice, to co-operate with local and national interests and to take full advantage of improvements in technology, to minimise this impact.

Safety:
Safety in the use of electricity continued to be the subject of regular advertising directed at the general public and at particular groups such as farming and construction workers. Lasting safety consciousness must begin at youth and special emphasis has been given to the education of children, through schools and television features.

Energy Costs:
Energy costs are a matter of growing concern to customers. To provide a range of payment facilities, such as budget payment and saving stamps, coupled with personal consideration for hardship cases, is one of the measures used to help customers. However, the principal challenge, in which the Board has adopted a leading role, is in assisting customers to reduce their energy use, while maintaining good standards of comfort and convenience.
This programme embraces the use of leaflets, lectures, fixed and mobile displays, advertising and the provision of free advisory services backed up by practical support through the sale of conservation and insulation services on easy payment terms. During the year these efforts resulted in the insulation of 12,000 attics and 5,000 waterheaters by direct sales alone.
The pattern of electricity usage by customers can have a major effect on the cost of its production. By avoiding use during the peak hours, the total amount of generating plant needed can be reduced and the resultant savings passed on directly to customers in special reduced tariffs for off-peak use. Last year a sustained programme through the media was a major factor in improving our load factor from 56.8% to 59.3%.

Employment:
Job Creation, to cater for a growing population in increasingly difficult circumstances, is a particular objective to which the Board is committed. During the year, direct employment was provided for 1,000 people within the organisation, through new jobs to cope with expansion, and through replacements.

Consultancy:
The Consultancy activity continues to be a highly beneficial undertaking, employing directly over 100 skilled people, earning valuable foreign currency and projecting the image of Ireland as a competent technological and managerial country. It has identified opportunities and given technical advice and support to Irish manufacturers to gain entry into and orders in foreign markets.

Irish Manufacturers and Assemblers:
The substitution of Irish sources for imported goods and services is actively promoted by the Board including, where necessary, providing technical advice and assistance. This co-operation between the Board's technical staff and Irish businesses has resulted in the continued expansion in the range of materials and services which Irish sources now make to E.S.B. needs.
The policy of encouraging Irish industry was highlighted during the year when the Board, with the co-operation of the Irish Goods Council, presented two exhibitions (Dublin and Ennis) of materials which have to be imported. The aim of the exhibition was to bring these materials to the attention of Irish manufacturers, as the Board considered that they could possibly be manufactured in Ireland. One hundred and five items were displayed representing annual orders of £3,500,000, and invitations to attend were issued to all industries, large and small. The exhibitions attracted considerable interest and the possible manufacture of many of these items is now being examined by Irish firms.

Irish Materials:
The Board's policy of encouraging Irish industry in circumstances which are competitive and economic has had its result. When the Shannon Scheme was being constructed all the materials had to be imported. At the present time the percentage of orders to Irish sources for the Board is in excess of 50%, a significant achievement considering the high level of technology involved. As already mentioned 85% of Distribution outgoings last year was spent in Ireland.

Work in progress at the new coal-fired Generating Station at Moneypoint in Co. Clare. Insets show the visitors' reception area and construction of the jetty.



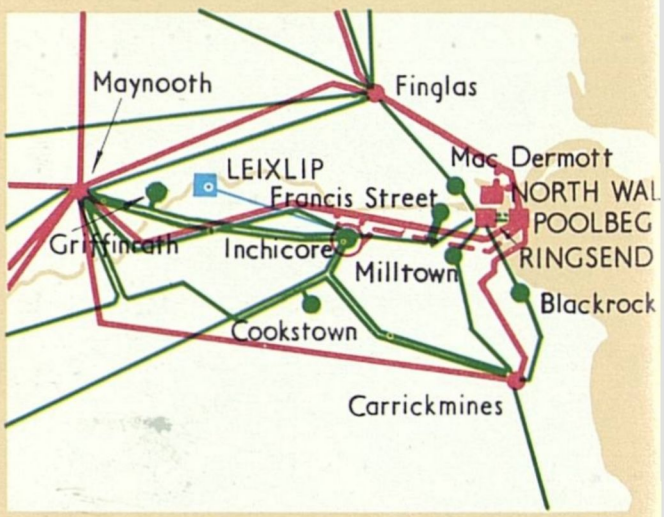
General outline of the GENERATION and TRANSMISSION SYSTEMS

31st March, 1980

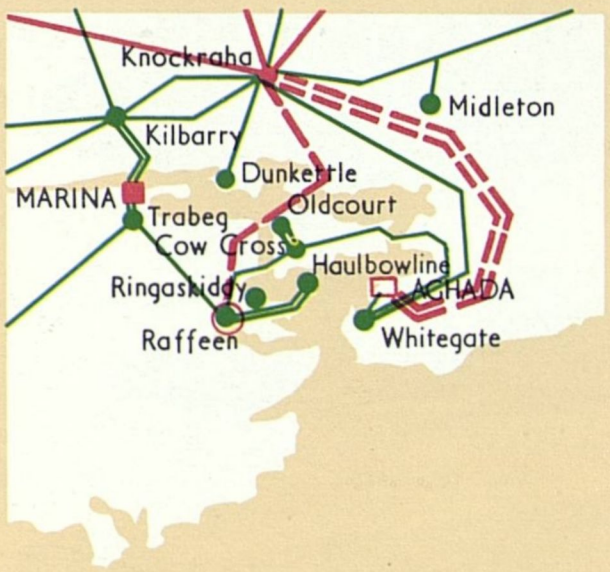
HYDRO STATIONS
STEAM STATIONS
STEAM STATIONS PROJECTED
PUMPED STORAGE STATION
220 KV TRANSFORMER STATIONS
220 KV TRANSFORMER STATIONS PROJECTED
110 KV TRANSFORMER STATIONS
110 KV TRANSFORMER STATIONS PROJECTED
220 KV LINES
220 KV LINES PROJECTED
110 KV LINES
110 KV LINES PROJECTED
OTHER HIGH VOLTAGE LINES
275 KV LINES

GWEEDORE
CLADY
Kiltoy
Letterkenny
CATHALEEN'S FALL
CLIFF
Sligo
Tawnaghmore
BELLACORICK
Moy
ARIGNA
Carrick-on-Shannon
Flagford
Castlebar
Richmond
LANESBOROUGH
Shankill
to N.I.E.S.
Dundalk
Louth
Drybridge
Platin
Navan
Knockumber
Nevinstown
Mullingar
See inset 1 for details
Maynooth
Finglas
Griffinrath
Inchicore
Carrickmines
Cookstown
Fassaroe
RHODE
ALLENWOOD
Newbridge
PORTARLINGTON
GOLDEN FALLS
POLLAPHUCA
TURLOUGH HILL
Portlaoise
Carlow
Shelton Abbey
Arklow
Ikerrin
Thurles
Kilkenny
Crane
Wexford
GREAT ISLAND
Waterford
Butlerstown
Dungarvan
Cahir
Ballydine
Barrymore
Mallow
Charleville
Tralee
Trien
Rathkeale
TARBERT
MONEYPOINT
Limerick
Aughinish
ARDNACRUSHA
Drumline
Ahane
Killonan
Ennis
MILTOWN MALBAY
SCREEB
Cashla
Galway
SHANNON-BRIDGE
Athlone
FERBANE
Derryfrench
Tynagh
CAHIRCIVEEN
Macroom
CARRIGADROHID
INNISCARRA
Kilbarry
MARINA
Trabeg
Raffeen
Knockraha
Midleton
Dunkettle
Haulbowline
AGHADA
Whitegate
Ringaskiddy
Dunmanway
Bandon
See inset 2 for details

INSET 1



INSET 2



Financial Accounts and Schedules for year ended 31st March, 1980

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Profit and Loss Account

Account No. 1

1978/1979 IR.£000's		IR.£000's	1979/1980 IR.£000's
	Operations		
11,697	Electricity Income and Expenditure Account (Schedule A)		11,646
(732)	Appliance and Contracts Income and Expenditure Account (Schedule B)		(289)
530	Consultancy Income and Expenditure Account (Schedule C)		663
11,495			12,020
106	Appreciation of Temporary Investments		—
(435)	Expenses on New Borrowings		(560)
11,166	Operations Surplus/(Deficit)		11,460
(18,539)	Amortisation Charge (Schedule A)		(20,771)
	Non-Operating Items		
19,297	Income and Credits (Net)*	18,774	
(19,297)	Transferred to Capital Reserves and Sinking Fund	(18,774)	—
8,369	Depreciation Adjustment	(746)	
(8,369)	Transferred to/from Asset Renewal Reserve (Schedule K)	746	—
(7,373)	Surplus/(Deficit) for Year		(9,311)
(4,564)	Surplus/(Deficit) brought forward from previous year		(11,937)
£(11,937)	Surplus/(Deficit) carried forward to next year		£(21,248)

* Details in Schedule E.

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

Balance Sheet

Account No. 2

31st March, 1979				31st March, 1980	
IR.£000's	*Reference*		IR.£000's	IR.£000's	IR.£000's
600,058	Schedule F	**Total Investment in Capital Assets** including work-in-progress		689,873	
179,942	Schedule F	Less Accumulated Depreciation		202,079	
420,116					487,794
140,035	Schedule G	**Current Assets**		212,052	
		Less:			
80,685	Schedule G	**Current Liabilities**		94,139	
59,350		**Net Current Assets**			117.913
36,217	Schedule H	**Sinking Fund Investments,** at cost			50,397
£515,683					£656,104
		Financed as follows:			
384,704	Schedule I	**Borrowings**			501,494
		Reserves			
105,498	Schedule K	Capital		123,636	
36,843	Schedule H	Sinking funds for borrowings		51,647	
		Revenue Reserves:			
500	—	Plant, self-insurance	500		
75	—	Others	75		
				575	
(11,937)	Account No. 1	Profit and Loss Account balance (deficit)		(21,248)	
130,979					154,610
£515,683					£656,104

Note: At 31st March, 1980 contractual commitments amounted to approximately £189,000,000 (1979 — £80,000,000)

Signed: Charles T. G. Dillon *Chairman*

Signed: J. J. Kelly *Chief Executive*
J. B. O'Donoghue *Director, Finance*

Electricity Income and Expenditure Account

Schedule A

1978/1979 IR.£		IR.£	IR.£	IR.£	IR.£	1979/1980 IR.£
222,767,560	**Income** – Electricity Sales	300,023,964				
532,920	– Miscellaneous	445,717				
223,300,480						300,469,681
	Expenditure:	**Generation**	**Transmission**	**Distribution**		
98,982,157	Fuel	144,877,179				
55,868,428	Operation, maintenance and local charges	33,247,717	3,384,885	37,690,222		
12,914,872	General charges	6,718,229	1,926,018	6,291,945		
18,844,500	Depreciation	11,429,765	2,928,912	8,204,023		
294,983	Fisheries net cost	278,421				
186,904,940		196,551,311	8,239,815	52,186,190	256,977,316	
24,698,542	Interest	14,179,349	4,840,221	12,827,096	31,846,666	
211,603,482		210,730,660	13,080,036	65,013,286		288,823,982
11,696,998						11,645,699
18,539,287	Amortisation Charge (Schedule N – Note 9)	9,062,371	3,140,255	8,568,553		20,771,179
£(6,842,289)	Surplus/(Deficit)					£(9,125,480)

Notes:

Charges include: Local Rates £1,098,590 (£965,225), Central Transport and Stores Depot Costs £1,255,903 (£997,705), General Publicity £1,012,814 (£480,506), Bad Debts £254,644 (£411,125), Audit Fee £35,500 (£25,000), Board Members' Remuneration (including full-time Chairman) £31,021 (£22,203), Depreciation of Tools and Vehicles £1,302,443 (£1,129,606). Transfer from Appliance and Contracts Income and Expenditure Account £1,267,100 (£759,297).

Fuel includes purchased electricity £56,262 (£33,680).

The previous year's figures are shown in brackets.

Appliance and Contracts Income and Expenditure Account

Schedule B

1978/1979 (Re-stated in line with Note 13 — Schedule N)					1979/1980			
Appliance Sales	Appliance Repairs	Installations Contracts	Total		Total	Appliance Sales	Appliance Repairs	Installations Contracts
IR.£	IR.£	IR.£	IR.£		IR.£	IR.£	IR.£	IR.£
6,111,358	1,066,337	2,922,882	10,100,577	Income, exclusive of VAT	12,291,117	7,840,748	1,114,812	3,335,557
4,815,761	852,137	2,529,909	8,197,807	Direct Costs	9,900,072	6,268,681	928,221	2,703,170
1,295,597	214,200	392,973	1,902,770	Gross Profit	2,391,045	1,572,067	186,591	632,387
				Overheads:				
980,788	319,052	289,392	1,589,232	Payroll costs	1,851,909	1,127,255	416,236	308,418
52,555	—	—	52,555	Publicity	31,507	31,507	—	—
239,204	—	—	239,204	Premises costs	272,854	272,854	—	—
55,007	4,289	30,956	90,252	Sundry expenses	107,255	66,160	9,528	31,567
678,535	384,290	360,262	1,423,087	General charges and interest, as apportioned	1,683,314	860,900	417,600	404,814
2,006,089	707,631	680,610	3,394,330		3,946,839	2,358,676	843,364	744,799
193,700	526,130	39,467	759,297	Less: transfer to Electricity Income and Expenditure Account (See Schedule N — Note 13)	1,267,100	677,200	543,400	46,500
1,812,389	181,501	641,143	2,635,033		2,679,739	1,681,476	299,964	698,299
£(516,792)	£32,699	£(248,170)	£(732,263)	Surplus/(Deficit) transferred to Profit & Loss Account	£(288,694)	£(109,409)	£(113,373)	£(65,912)

Consultancy Income and Expenditure Account

Schedule C

1978/1979		Consultancy and Advisory Services	Training		1979/1980
IR.£		IR.£	IR.£	IR.£	IR.£
4,136,082	**Income:**	3,584,680	600,784	–	4,185,464
	Expenditure:				
3,265,847	Direct Costs	2,693,904	431,072	3,124,976	–
	Overheads:				
150,696	Directly allocated	234,424	37,512	271,936	–
189,400	General charges and interest as apportioned	107,757	17,243	125,000	–
3,605,943					3,521,912
£530,139	Surplus transferred to Profit & Loss Account				£663,552

Statement of Source and Application of Funds

Schedule D

1978/1979 IR.£	*Reference*	**Source:**	1979/1980 IR.£
11,165,578	Account No. 1	Operations before Amortisation Charge	11,460,215
1,443,982	Schedule J	Provision towards premium on Stock Redemption	911,620
19,981,106	Schedule F	Depreciation	23,869,143
1,456,308	Schedule E	Credits on disposal of assets	1,490,629
3,354,211	Schedule E	Interest on sinking fund investments	5,385,693
37,401,185			43,117,300
15,176,881	Schedule E	Non-repayable supply contributions	11,572,930
85,253,973*	Schedule I	Borrowings	124,929,352
£137,832,039			£179,619,582
		Application:	
69,768,660	Schedule F	Capital expenditure	92,293,086
45,522,401*	Schedule I	Redemption of borrowings (net of credits £325,181 on Stock cancellation)	14,583,157
11,337,763	Schedule H	Increase in sinking fund investments	14,180,294
11,203,215	Schedule G	Net movement in current assets/current liabilities	58,563,045
£137,832,039			£179,619,582

* Includes £31.46m. used for prepayment of existing Borrowings.

Statement of Non-Operating Items — Profit and Loss Account

Schedule E

1978/1979 IR.£		IR.£	1979/1980 IR.£
	Income and Credits		
15,176,881	Non-Repayable Supply Contributions (Schedule K)	11,572,930	
765,631	Credits arising on ESB Stock Cancellations (Schedule H)	325,181	
3,354,211	Interest on Sinking Fund Investments (Schedule H)	5,385,693	
—*	Credits arising on disposal of Assets Retired (Schedule K)	1,490,629	
£19,296,723			£18,774,433
(15,942,512)	To Capital Reserves	(13,388,740)	
(3,354,211)	To Sinking Fund	(5,385,693)	
£(19,296,723)			£(18,774,433)

*Shown under Schedule F 1978/1979.

Statement of Capital Assets

Schedule F

	Total at 31st March, 1979 IR.£	Additions Less Retirements during year IR.£	**Total at 31st March, 1980 IR.£**
Generation	226,361,850	5,419,534	**231,781,384**
Transmission	74,672,428	4,135,485	**78,807,913**
Distribution	204,129,140	21,532,442	**225,661,582**
General Buildings, Transport and Working Equipment	27,632,502	4,079,622	**31,712,124**
Fisheries	177,222	–	**177,222**
	532,973,142	£35,167,083	**568,140,225**
Work-in-Progress, including payments on account	67,084,891		**121,732,679**
Total Investment in Capital Assets (at cost)	600,058,033		**689,872,904**
Deduct Accumulated Depreciation, as below	179,942,424		**202,079,039**
Net Investment in Capital Assets	£420,115,609		**£487,793,865**

Note: Work carried out in the year amounted to £92,293,086 (1978/1979 £69,768,660).

Accumulated Depreciation:	IR.£	IR.£	IR.£
Provision for depreciation of assets less assets retired as at 31st March, 1979		179,942,424	
Movements in year:			
Depreciation of assets	23,869,143		
Assets retired	(2,478,215)	21,390,928	201,333,352
Transfer from Asset Renewal Reserve (Schedule K)			745,687
Total as at 31st March, 1980			**£202,079,039**

	Accumulated Depreciation as at 31st March, 1980 IR.£
Generation:	**90,247,137**
Transmission:	**23,495,513**
Distribution:	**80,401,634**
General Buildings, Transport and Working Equipment:	**7,839,361**
Fisheries:	**95,394**
	£202,079,039

Statement of Current Assets and Current Liabilities

Schedule G

31st March, 1979 IR.£						31st March, 1980 IR.£
	Current Assets					
(2,149,311)	Cash at bank and in hand				2,783,079	
11,099,901	Temporary cash deposits				12,614,345	
8,950,590						15,397,424
		Nominal Value				
	Investments at cost:	IR.£				
2,634,757	ESB Stocks	1,853,248	(1978/1979	£2,957,821)	1,558,992	
—	Euro Bonds	5,214,517	(1978/1979	—)	5,001,207	
718,672	Units of Account	476,761	(1978/1979	£742,495)	416,389	
3,353,429						6,976,588
	Accounts Receivable:					
	Electricity: billed				26,799,569	
	unbilled				52,522,220	
54,638,104					79,321,789	
12,368,422	Appliance and Contracts including Hire Purchase				14,692,962	
15,343,078	Others				17,473,273	
82,349,604						111,488,024
	Inventories:					
23,860,430	Fuel				50,349,726	
17,940,871	Plant/Network Stocks and Miscellaneous Spares and Sundries				23,984,034	
1,689,014	Appliances				2,110,159	
43,490,315						76,443,919
1,891,481	Repayable Work-in-Progress at cost					1,745,876
£140,035,419						£212,051,831
	Current Liabilities					
32,482,104	Accounts Payable					48,337,736
1,840,788	Progress Payments on Repayable Work-in-Progress					2,195,033
6,173,630	Borrowings — To finance Trading debtors					5,997,124
5,000,000	— Less than Twelve Month Term					—
5,579,686	Supply Contributions and Deposits					4,786,553
18,604,953	Accrued Charges and Provisions					20,544,032
11,004,298	Accrued Interest on Borrowings					12 278,348
£80,685,459						£94,138,826

Statement of Sinking Funds for Borrowings

Schedule H

1978/1979 IR.£		IR.£	1979/1980 IR.£
24.879,100	Opening Balance — Investments	36,216,863	
398,630	— Interest Accrued	625,442	
25,277,730			36,842,305
	Additions:		
18,539,287	Amortisation charge in year (Account No. 1)	20,771,179	
1,443,982	Provision for premium on ESB Stocks (Schedule J)	911,620	
765,631	Credits on cancellation of ESB Stocks	325,181	
3,354,211	Interest for year (including interest accrued)	5,385,693	
24,103,111			27,393,673
			64,235,978
	Utilisation:		
	Redemption of borrowings from:		
10,660,272	Amortisation (Schedule J)	11,882,188	
1,112,633	Sinking Fund Investments	381,812	
765,631	Credits on cancellation of ESB Stocks	325,181	
(12,538,536)	Reflected in Repaid Capital Reserve (Schedule K)		(12,589,181)
	Closing Balance: (as per Balance Sheet)		
36,216,863	Investments	50,397,157	
625,442	Interest accrued	1,249,640	
£36,842,305			£51,646,797

	Redemption of Borrowings:	
12,538,536	Funded redemption, as above	12,589,181
33,749,496	Non-Funded redemption	2,319,157
£46,288,032	Total, as per Schedule I	£14,908,338

Sinking Fund Investments:

	Nominal IR.£	Market IR.£	Cost IR.£
ESB Stocks	9,962,988	8,427,572	9,792,921
Government Stocks	46,576,800	35,459,996	40,259,034
Bank Deposit			345,202
Total (as per Balance Sheet)			£50,397,157

Statement of Borrowings

Schedule I

Amount of Borrowing IR.£			Balance Outstanding 31st March, 1979 IR.£	Borrowed during year IR.£	Redeemed during year IR.£	Adjustment for currency changes IR.£	Balance Outstanding 31st March, 1980 IR.£
	Irish Pound Borrowings:						
68,450,236	Advances	– Minister for Finance	**45,588,599**	–	1,407,539	–	**44,181,060**
500,000	Loan	– New Ireland Assurance Co. Ltd. 6% – 1962/87	**244,097**	–	24,583	–	**219,514**
14,865,000	Loan	– Central Bank of Ireland 7.25% – 1972/87	**9,835,950**	–	945,601	–	**8,890,349**
12,000,000	Stock	– 6% – 1982/87	**4,039,549**	–	100,000	–	**3,939,549**
16,500,000	Stock	– 6% – 1984/89	**7,065,401**	–	550,000	–	**6,515,401**
13,000,000	Stock	– 7% – 1986/91	**8,450,130**	–	200,000	–	**8,250,130**
7,000,000	Stock	– 7.25% – 1988/93	**4,709,306**	–	–	–	**4,709,306**
9,250,000	Stock	– 9.5% – 1985/90	**7,572,102**	–	100,000	–	**7,472,102**
12,000,000	Stock	– 9% – 1992/95	**8,731,225**	–	50,000	–	**8,681,225**
11,300,000	Stock	– 13% – 1983/85	**9,866,750**	–	587,138	–	**9,279,612**
10,750,000	Stock	– 10% – Premium (20%) 1980	**10,010,909**	–	200,000	–	**9,810,909**
6,000,000	Stock	– 9.5% – Premium (20%) 1981	**5,032,528**	–	100,000	–	**4,932,528**
8,200,000	Stock	– 9% – Premium (20%) 1983	**7,450,303**	–	392,877	–	**7,057,426**
16,800,000	Stock	– 13% – 1988	**15,324,978**	–	600,000	–	**14,724,978**
6,000,000	Stock	– 9% Premium (20%) 1984	**6,000,000**	–	315,893	–	**5,684,107**
12,000,000	Stock	– 13% – 1990/92	**12,000,000**	–	–	–	**12,000,000**
19,500,000*	Revolving Credits	– Domestic Banks – 1981/88	**19,500,000**	–	–	–	**19,500,000**
			181,421,827	–	5,573,631	–	**175,848,196**
	Foreign Currency Borrowings:						
Project Finance							
IR£20,000,000*	– European Investment Bank 9.2% – 1983/98		**19,401,716**	–	–	788,982	**20,190,698**
IR£10,000,000*	– European Investment Bank 9.35% – 1983/99		–	10,000,000	–	166,138	**10,166,138**
IR£15,000,000*	– European Investment Bank 9.45% – 1983/99		–	14,799,638	–	479,174	**15,278,812**
IR£20,000,000*	– European Investment Bank 9.45% – 1983/99		–	19,734,815	–	638,687	**20,373,502**
IR£10,785,000*	– European Investment Bank 8.45% – 1985/94		–	10,927,946	–	(–)168,897	**10,759,049**
IR£5,715,000*	– European Investment Bank 12.0% – 1985/96		–	5,586,733	–	488,632	**6,075,365**
US$14,500,000*	– International Bank for reconstruction and Development 6.5% – 1974/94		**8,348,963**	–	266,536	7,537	**8,089,964**
US$20,000,000*	– International Bank for Reconstruction and Development 7.25% – 1976/87		**9,365,930**	–	1,153,387	340,892	**8,553,435**
US$15,000,000*	– International Bank for Reconstruction and Development 7.25% – 1977/88		**7,571,632**	–	662,015	280,122	**7,189,739**
Sw.Fr.1,338,080	– Swiss Bank 6.5% – 1975/81		**165,021**	–	61,094	3,355	**107,282**
F.Fr.192,177,330	– French Banks		**15,481,896**	7,787,604	2,418,484	123,665	**20,974,681**
Stg.£9,342,467	– British Banks/Suppliers		**5,123,350**	1,289,151	1,639,101	526,065	**5,299,465**
Sp. Pes.32,909,875	– Spanish Bank		**202,725**	–	47,782	170	**155,113**
			65,661,233	70,125,887	6,248,399	3,674,522	**133,213,243**

* Multi-Currency Facilities

—continued overleaf

Statement of Borrowings

Schedule I (contd.)

Foreign Currency Borrowings: (contd).

Amount of Borrowing			Balance Outstanding 31st March, 1979 IR.£	Borrowed during year IR.£	Redeemed during year IR.£	Adjustment for currency changes IR.£	Balance Outstanding 31st March, 1980 IR.£
Fixed Term Loans:							
Registered Notes/Bonds and Bearer Bonds							
US$30,000,000	– Japanese Banks 7.75%	– 1973/92	**10,218,481**	–	757,384	536,340	**9,997,437**
US$12,000,000	– U.S. Syndicate 9.25%	– 1983/92	**5,839,132**	–	–	313,136	**6,152,268**
Sw.Fr.50,000,000	– Swiss Banks 4.625%	– 1985	**14,388,075**	–	–	(–)357,320	**14,030,755**
Sw.Fr.25,000,000	– Kredietbank (Suisse) 5.25%	– 1980/83	–	7,114,936	–	(–) 99,559	**7,015,377**
Sw.Fr.25,000,000	– Kredietbank (Suisse) 5.75%	– 1980/86	–	7,114,936	–	(–) 99,558	**7,015,378**
U.A.15,000,000	– Units of Account 8.25%	– 1972/86	**9,276,819**	–	1,107,923	(–)206,847	**7,962,049**
B.Fr.1,000,000,000	– Belgian Banks 7.5%	– 1983	**15,757,958**	–	–	262,548	**16,020,506**
B.Fr.700,000,000	– Belgian Banks 7.5%	– 1983	**11,030,570**	–	–	183,784	**11,214,354**
B.Fr.1,000,000,000	– Belgian Banks 8.75%	– 1980/89	**15,757,958**	–	1,221,001	282,011	**14,818,968**
			82,268,993	14,229,872	3,086,308	814,535	**94,227,092**
Revolving Credits:							
US$40,000,000*	– Banking Syndicate	– 1980/88	**19,437,892**	–	–	1,069,670	**20,507,562**
US$30,000,000*	– Banking Syndicate	– 1981/88	**15,333,638**	–	–	47,034	**15,380,672**
D.M.150,000,000	– Banking Syndicate	– 1982	–	40,573,593	–	(–)732,956	**39,840,637**
Stg.£20,500,000*	– Domestic Banks	– 1981/88	**20,580,985**	–	–	1,895,921	**22,476,906**
			55,352,515	40,573,593	–	2,279,669	**98,205,777**
TOTAL – FOREIGN CURRENCY BORROWINGS			**203,282,741**	124,929,352	9,334,707	6,768,726	**325,646,112**
TOTAL – IRISH POUND BORROWINGS (See previous page)			**181,421,827**	–	5,573,631	–	**175,848,196**
TOTAL – ALL BORROWINGS			**384,704,568**	124,929,352	14,908,338	6,768,726	**501,494,308**

* Multi-Currency Facilities

Summarisation of Borrowings by Currency and by Residual Maturity

	Maturity Expiring Within 1 year. IR.£000	Maturity Expiring Within 2 to 5 Yrs. IR.£000	Maturity Expiring Within 6 to 10 Yrs. IR.£000	Maturity Expiring After 10 Yrs. IR.£000	Total IR.£000	Currency as % of Total Borrowings %
Irish Pounds	13,623	38,143	56,137	67,945	175,848	35
Sterling	2,838	12,561	10,738	363	26,500	5
U.S. Dollars	3,842	27,067	33,139	33,273	97,321	20
Deutsche Marks	878	46,059	14,540	19,176	80,653	16
Swiss Francs	8,016	11,981	16,137	–	36,134	7
Belgian Francs	1,241	33,030	8,260	–	42,531	9
French Francs	2,668	10,705	3,037	4,565	20,975	4
Others	472	3,225	5,810	12,025	21,532	4
	33,578	182,771	147,798	137,347	501,494	
Profile of expiration of residual maturities	7%	37%	29%	27%		100%

Statement of Interest and Amortisation of Borrowings

Schedule J

1978/1979 IR.£		IR.£	IR.£	1979/1980 IR.£
	Interest on:			
	Advances from Minister for Finance		2,049,886	
	Borrowings in Irish pounds	13,615,597		
	Add: Provision for funding of premium on redemption of ESB Stocks (below)	911,620		
			14,527,217	
	Borrowings in other currencies		22,645,172	
			39,222,275	
	Less: Interest from temporary investment		1,706,491	
29,247,459				**37,515,784**
	Amortisation of Borrowings:			
	Redemptions:			
	Minister for Finance		1,407,539	
	Others		10,474,649	
			11,882,188	
	Investments for sinking funds	9,800,611		
	Less: Provision for funding of premium on redemption of ESB Stocks	911,620	8,888,991	
18,539,287				**20,771,179**
£47,786,746				**£58,286,963**
	Allocated as follows:			
	Interest:			
	Income and Expenditure Accounts:			
	– Electricity		31,846,666	
	– Appliance and Contracts		372,316	
	Fisheries		5,864	
	Capital Works		5,290,938	
29,247,459				**37,515,784**
	Amortisation:			
18,539,287	Electricity Income and Expenditure Account			**20,771,179**
£47,786,746				**£58,286,963**

Statement of Capital Reserves

Schedule K

	IR.£	IR.£	IR.£
Non-Repayable Supply Contributions:			
Contributions from State under Electricity (Supply) Acts towards capital cost of supplying rural areas — as at 31st March, 1979	27,889,826		
Received in year	—		
		27,889,826	
Other contributions — as at 31st March, 1979	22,800,506		
Transferred in year	11,572,930		
		34,373,436	
			62,263,262
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, 1979		46,438,699	
Movements in year:			
Amortisation of Borrowings (Schedule H)	12,589,181		
Adjustment for changes in currency parities (Schedule N — Note 8)	(6,768,726)		
		5,820,455	
			52,259,154
Asset Renewal Reserve:			
Balance as at 31st March, 1979		8,369,000	
Credits arising on disposal of assets retired (Schedule E)		1,490,629	
Depreciation Adjustment (Schedule F)		(745,687)	
			9,113,942
Total as at 31st March, 1980 (as per Balance Sheet)			**£123,636,358**

Statement of Generation Costs

Schedule L

Generation	Fuel	Operation	Maintenance	Local Charges	WORKS COST 1979/1980	WORKS COST Per Unit Sent Out	WORKS COST 1978/1979	WORKS COST Per Unit Sent Out	Depreciation	TOTAL COST 1979/1980	TOTAL COST 1978/1979
	IR.£	IR.£	IR.£	IR.£	**IR.£**	Pence	IR.£	Pence	IR.£	**IR.£**	IR.£
Coal/Oil/Gas											
Marina	11,652,478	1,051,043	1,005,483	252,543	**13,961,547**	1.309	8,583,935	1.960	715,308	**14,676,855**	8,853,617
Ringsend	11,151,051	1,576,568	2,153,706	311,132	**15,192,457**	3.143	13,026,664	1.798	348,119	**15,540,576**	13,660,121
Arigna	1,627,912	324,880	237,483	56,282	**2,246,557**	3.494	1,518,897	3.484	16,243	**2,262,800**	1,563,884
Great Island	13,185,560	788,369	1,449,638	241,604	**15,665,171**	2.183	16,594,080	1.284	704,747	**16,369,918**	17,299,075
Tarbert	43,966,823	1,300,023	1,769,495	340,214	**47,376,555**	1.940	29,696,147	1.240	3,931,526	**51,308,081**	32,319,910
Poolbeg	44,780,557	1,316,588	2,374,122	411,083	**48,882,350**	1.852	23,489,576	1.180	3,635,525	**52,517,875**	25,028,083
Sod Peat (Machine)											
Portarlington	873,520	503,940	428,301	85,204	**1,890,965**	3.030	1,565,280	7.562	10,149	**1,901,114**	1,644,446
Allenwood	1,639,848	682,290	520,826	102,051	**2,945,015**	2.541	2,414,394	2.019	4,804	**2,949,819**	2,530,836
Lanesborough	538,514	324,189	186,451	50,616	**1,099,770**	2.182	1,279,284	1.512	9,167	**1,108,937**	1,327,407
Milled Peat											
Ferbane	4,107,596	986,260	1,602,939	199,761	**6,896,556**	2.123	5,701,165	1.542	96,593	**6,993,149**	5,977,446
Rhode	3,783,755	780,621	1,166,154	157,011	**5,887,541**	1.664	5,100,927	1.417	219,531	**6,107,072**	5,320,693
Bellacorick	1,472,394	552,303	739,743	102,889	**2,867,329**	2.528	2,948,851	1.385	122,410	**2,989,739**	3,071,216
Shannonbridge	3,745,791	647,676	882,445	128,715	**5,404,627**	1.567	4,380,610	1.271	497,108	**5,901,735**	4,878,651
Lanesborough	1,393,966	324,189	194,265	51,025	**1,963,445**	1.327	2,034,612	1.047	134,555	**2,098,000**	2,169,752
Sod Peat (Hand Won)											
Four 5MW Stations	370,622	417,898	212,130	58,362	**1,059,012**	12.034	1,084,814	5.479	3,465	**1,062,477**	1,153,312
Peak Station											
North Wall	530,530	349,496	111,734	79,320	**1,071,080**	–	913,712	–	43,865	**1,114,945**	1,038,479
Total — Fuel Stations	144,820,917	11,926,333	15,034,915	2,627,812	**174,409,977**	1.947	120,332,948	1.393	10,493,115	**184,903,092**	127,836,928
Hydro											
Shannon		399,315	783,402	170,963	**1,353,680**	.329	1,178,800	.410	115,152	**1,468,832**	1,320,352
Erne		216,057	371,873	91,460	**679,390**	.215	484,891	.229	116,772	**796,162**	680,552
Liffey		43,012	145,294	22,728	**211,034**	.412	252,413	.663	28,306	**239,340**	300,939
Lee		111,913	146,815	35,535	**294,263**	.333	235,360	.343	69,249	**363,512**	358,611
Clady		36,052	32,824	3,111	**71,987**	.470	51,322	.395	21,055	**93,042**	78,390
Pumped Storage											
Turlough Hill		281,696	614,821	101,550	**998,067**	–	491,384	–	586,116	**1,584,183**	1,078,041
Total — Hydro Stations		1,088,045	2,095,029	425,347	**3,608,421**	.528	2,694,170	.661	936,650	**4,545,071**	3,816,885
Total — All Stations	144,820,917	13,014,378	17,129,944	3,053,159	**178,018,398**	1.847	123,027,118	1.361	11,429,765	**189,448,163**	131,653,813

Electricity Purchased in bulk (net)	**56,262**	33,680
Central Transport and Stores	**50,236**	39,908
General Charges	**6,718,229**	5,172,361*
Fisheries (Net Cost before Amortisation)	**278,421**	294,983
TOTAL COST	**£196,551,311**	£137,194,745

* Net of Insurance claims £1.9m.

Fisheries — Commercial and Conservation Operations

Schedule M

Total Cost 1978/1979 IR.£		IR.£	**Total Cost 1979/1980 IR.£**	Commercial IR.£	Conservation IR.£
339,997	Direct Costs		**369,586**	112,864	256,722
	Overheads and General Charges:				
73,355	Payroll expenses and charges	96,142			
7,000	Depreciation	4,000			
5,978	Interest on Borrowings	5,864	**106,006**	20,296	85,710
426,330			**475,592**	133,160	342,432
	Less:				
131,347	Sales of fish, letting of fishing rights and miscellaneous income		**197,171**	183,526	13,645
294,983	Net cost before Amortisation, as per Electricity Income and Expenditure Account		**278,421**	(50,366)	328,787
2,934	Amortisation Charge		**3,046**	498	2,548
£297,917	**Net Cost for Year**		**£281,467**	£(49,868)	£331,335

1. The Accounts are prepared under the terms of the Electricity (Supply) Acts, 1927-1979.

2. **Capital Assets:**
Capital Assets are valued at cost. Cost includes prime cost, overheads and interest costs during construction.

3. **Depreciation of Capital Assets:**
Depreciation policy is designed *within the limits of the historic cost convention* to meet minimum statutory requirements. 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 (including Thermal Station Structures)	20 years
: Transmission and Distribution Plant and Structures	25 years
: General Buildings and Hydro Station Structures	50 years

Depreciation is designed to recover historic cost over allotted lifespans and 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.
The change to a projected usage basis for generating units from 1st April, 1979 together with depreciating all assets from date of commissioning results in an increased charge for the year of approx. IR£2,600,000; discontinuing the previous practice of providing for depreciation beyond allotted lifespans results in a decreased charge of approx. IR£2,000,000. The net effect is an increase of approx. IR£600,000 in the charge for the year relative to what the total charge would have been under the policies previously applied.

4. **Inventories:**
Stocks are valued at average cost.

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 Stock issues 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 with a view to full repayment for those with a lifetime of twelve years and over and 50% repayment at least for those with lesser lifetimes.
Proportionate amortisation is charged on borrowings utilised in year.
The sinking fund provision towards the premium element payable on redemption of ESB Premium Stock is included in the charge for interest.

10. **Temporary Investment:**
Transfers of temporary investments in stocks/securities to Sinking Fund Investments are costed at prices current at the time of transfer.

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

12. **Hire Purchase Transactions:**
Profit on Hire Purchase sales is taken in the year of sale. Credit for interest is taken in equal instalments over the Hire Purchase term.

13. **Apportionments:**
(a) 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) An appropriate proportion of the Appliance and Installation Contracts Overhead Expenses has been transferred to the Electricity Income & Expenditure Account. The basis of calculating this proportion, has been altered in 1979/1980 to ensure greater accuracy in the allocation of costs. This transfer is now separately identified in the Appliance and Contracts Income & Expenditure Account, and for 1979/1980 includes an amount appropriate to Energy Conservation (from Appliance Sales), and an amount, calculated at 50p per customer, in recognition of the total safety and social role of Appliance Repairs.
The basis of calculating the overhead item "General Charges" has also been altered in 1979/1980 to reflect more accurately the up to date position.
The previous year's results have been restated on the new basis.

14. **Taxation:**
The Board is liable for Corporation Tax at the reduced rate specified in Section 79 of the Corporation Tax Act 1976. Because of large continuing capital expenditure, liability to tax will not arise in the foreseeable future and a tax equalisation reserve is not deemed necessary (unutilised capital allowances at 31st March 1980, are estimated at IR£256m.). Had a Tax Equalisation Reserve been provided, the accumulated figure would now be an estimated IR£35.2m. (31st March, 1979 — IR£30.2m.)

15. **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.

16. **Accounting Year:**
Income and Expenditure are aligned on a 52 or 53 week year as appropriate. The year 1979/80 is a 52 week year (1978/79 — 52 weeks).

Auditors' Report

As Auditors appointed by the Tánaiste and Minister for Energy, with the consent of the Minister for Finance, we have examined the Profit and Loss Account, Balance Sheet, and attached Schedules A to N of the Electricity Supply Board.

In our opinion, the Profit and Loss Account and Balance Sheet together with the Statement of Source and Application of Funds (Schedule D), when read in conjunction with the other Schedules and the Notes appearing thereon, give, under the historical cost convention, a true and fair view of the results of the Board for the year ended 31st March, 1980, and of the state of the Board's affairs as at that date.

Harcourt House,
Harcourt Street,
Dublin 2.
25 July, 1980.

Stokes Kennedy Crowley & Co.
Chartered Accountants.

Generation Statistics for the Year 1979/80

Station	Year 1979/80			Year 1978/79
	Generated Million Units	Station Use Million Units	Sent Out Million Units	Sent Out Million Units
Ardnacrusha	413.9	3.0	410.9	287.2
Cliff	90.1	0.9	89.2	58.8
Cathaleen's Fall	228.3	1.7	226.6	153.4
Carrigadrohid	22.9	0.5	22.4	18.7
Inniscarra	66.9	0.9	66.0	50.0
Pollaphuca	25.8	0.7	25.1	19.4
Golden Falls	9.5	0.1	9.4	7.1
Leixlip	16.9	0.2	16.7	11.6
Clady	15.4	0.1	15.3	13.0
Ferbane	358.3	33.4	324.9	369.7
Rhode	385.1	31.2	353.9	359.9
Bellacorick	123.8	10.4	113.4	212.9
Shannonbridge	377.7	32.9	344.8	344.6
Lanesborough	214.4	16.0	198.4	278.9
Portarlington	68.1	5.7	62.4	20.7
Allenwood	125.5	9.6	115.9	119.6
Cahirciveen	4.6	0.7	3.9	9.0
Milltown Malbay	0.1	0.1	–	1.5

Station	Year 1979/80			Year 1978/79
	Generated Million Units	Station Use Million Units	Sent Out Million Units	Sent Out Million Units
Screeb	–	–	–	1.1
Gweedore	5.9	1.0	4.9	8.2
Marina (Gas)	1,098.4	31.8	1,066.6	63.2
Poolbeg	2,769.5	130.7	2,638.8	1,989.4
North Wall	22.7	2.1	20.6	27.2
Ringsend	523.8	40.5	483.3	724.5
Marina (Oil)	–	–	–	374.8
Great Island	761.5	43.8	717.7	1,292.3
Tarbert	2,604.6	161.6	2,443.0	2,394.7
Arigna	69.1	4.8	64.3	43.6
Turlough Hill (generation)	363.0	5.1	357.9	348.0
Turlough Hill (pumping)	556.3	–	556.3	559.9
ESB Import	–	–	–	–
ESB Export	–	–	–	–
Purchased	4.1	–	4.1	3.1
System Demand	10,213.6	569.5	9,644.1	9,046.2
Maximum daily Generation Million Units			36.7	37.0
Maximum load Generated in MW			1,971	1,934

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

Appendix 2

Hydro Stations

Station	Location	Average annual generation million units	Plant Particulars		Plant Performance for year ended 31/3/'80		
			Generating Sets		Units sent out millions	Plant load factor %	Works cost per unit sent out (pence)
			No.	Capacity (MW)			
Ardnacrusha	Shannon	310	4	85	410.9	55.7	0.329
Pollaphuca	Liffey	45	2	30	51.2	9.8	0.412
Golden Falls			1	4		27.2	
Leixlip			1	4		48.4	
Cliff	Erne	275	2	20	315.8	51.6	0.215
Cathaleen's Fall			2	45		58.1	
Carrigadrohid	Lee	77	1	8	88.4	32.8	0.333
Inniscarra			2	19		40.3	
Clady	Clady	13	1	4	15.3	44.1	0.470
Turlough Hill – Pumped Storage	Co. Wicklow	–	4	292	357.9	–	–

Particulars and Performance of Generating Plant

Appendix 2 contd.

Steam Stations

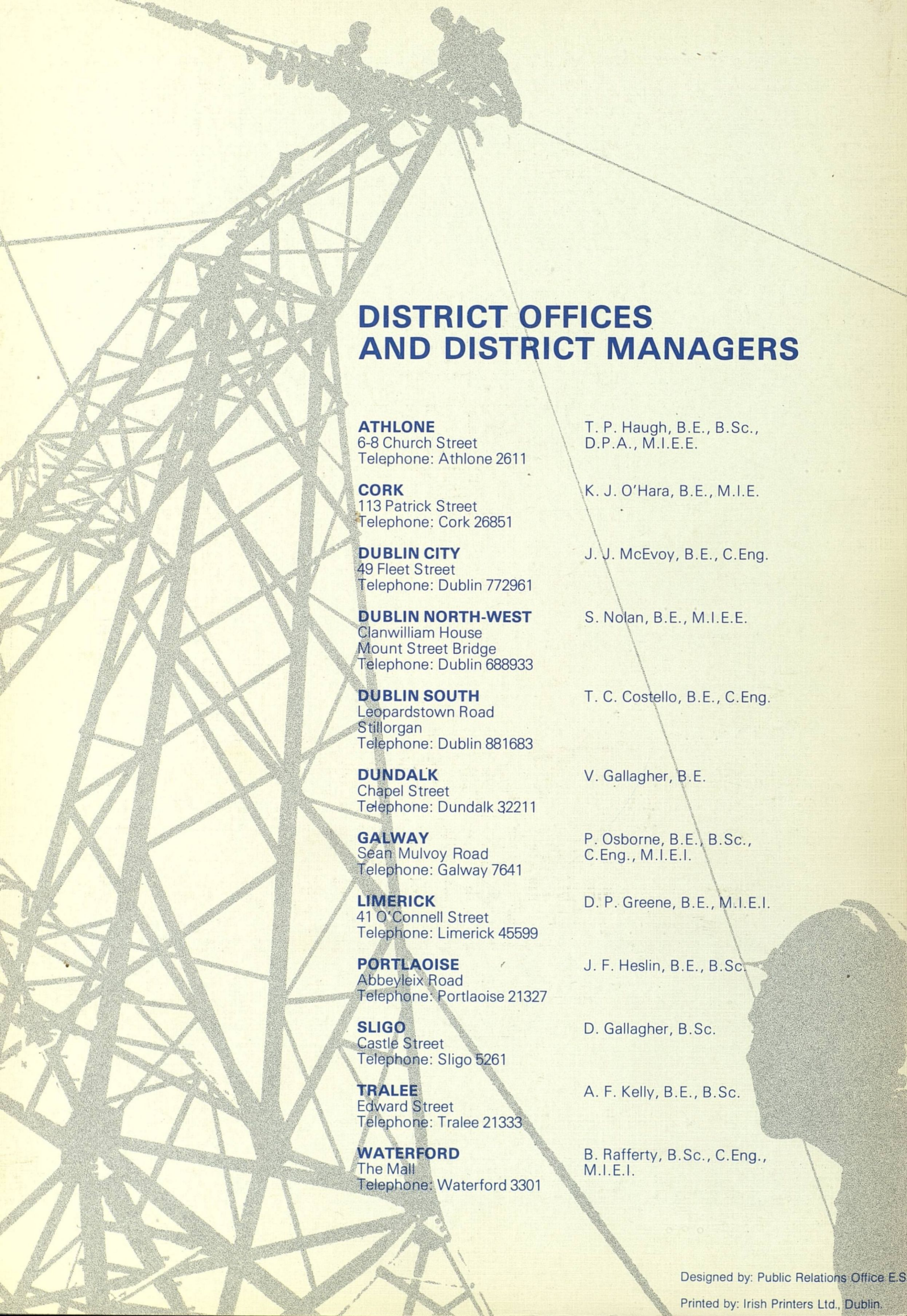
Station	Location	Plant Particulars					Plant Performance for year ended 31/3/'80			
		Generating Sets		Boilers			Units sent out millions	Plant load factor %	Fuel cost per unit sent out (pence)	Works cost per unit sent out (pence)
		No.	Total Capacity MW	No.	Total Capacity Tonne/hour	Fuel Type				
Arigna	Co. Roscommon	1	15	1	75	Coal	64.3	52.7	2.532	3.494
Great Island	Co. Wexford	3	240	3	853	Oil	717.7	36.3	1.837	2.183
Marina	Cork City	3	120	4	522	Oil/Gas	1,066.6	61.3	1.092	1.309
		1	85	Combustion Turbine		Gas				
North Wall (Peak Station)	Dublin City	3	48	3	225	Oil	20.6	5.4	2.575	–
Poolbeg	Dublin City	2	240	2	760	Oil	2,638.8	58.9	1.697	1.852
		1	270	1	800	Oil				
		2	28	Combustion Turbines		Oil				
Ringsend	Dublin City	6	270	7	1114	Oil	483.3	22.2	2.307	3.143
Tarbert	Co. Kerry	2	120	2	473	Oil	2,443.0	48.1	1.800	1.940
		2	500	2	1600	Oil				
			620							

Particulars and Performance of Generating Plant

Appendix 2 contd.

Steam Stations

Station	Location	Plant Particulars					Plant Performance for year ended 31/3/'80			
		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/hour	Fuel Type				
Bellacorick	Co. Mayo	2	40	2	191	Milled Peat	113.4	35.4	1.298	2.528
Ferbane	Co. Offaly	4	90	4	430	Milled Peat	324.9	45.6	1.264	2.123
Rhode	Co. Offaly	3	80	3	364	Milled Peat	353.9	55.1	1.069	1.664
Shannonbridge	Co. Offaly	2	80	2	346	Milled Peat	344.8	54.0	1.086	1.567
Lanesborough	Co. Longford	2	60	1 1	100 173	Sod Peat Milled Peat	50.4 148.0	30.9 45.9	1.068 0.942	2.182 1.327
Portarlington	Co. Laoise	3	37.5	3	205	Sod Peat	62.4	20.8	1.400	3.030
Allenwood	Co. Kildare	2	40	4	273	Sod Peat	115.9	35.9	1.415	2.541
Chairciveen	Co. Kerry	1	5	1	28	Sod Peat	8.8	6.1	4.212	12.034
Gweedore	Co. Donegal	1	5	1	28	Sod Peat				
Miltown Malbay	Co. Clare	1	5	1	28	Sod Peat				
Screeb	Co. Galway	1	5	1	28	Sod Peat				



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