

CHAPTER 4

Enserch Corporation

History and development

4.1. Enserch Corporation of Dallas, Texas carries out a range of energy-related operations in the United States of America and other parts of the world (natural gas transmission and distribution, petroleum exploration and production, oilfield services and engineering and construction services). It takes its origin from the Lone Star Gas Company, which was established in Texas in 1942 as the successor to a company originally incorporated in 1909. From 1942 to 1969 this company was basically a natural gas supplier with some interests in oil and gas exploration to meet its own needs. Since 1970, pursuing a policy of diversification in order to be less dependent on this original business, it has broadened and expanded its interests by internal growth and acquisition and in 1975 the name of the Lone Star Gas Company was changed to Enserch Corporation. Table 4.1 gives a ranking of Enserch among the top 500 United States corporations.

TABLE 4.1 Ranking of Enserch in top 500 US corporations

By	1980	1979
Sales	219	240
Profits	198	311
Assets	379	390
Market value	144	237

Source: *Forbes Annual Directory* Issue 11 May 1981.

4.2. Important acquisitions on the oilfield services side included the Pool Company in 1972, Gulf Offshore Company in 1974 and Intairdril and Samson Ocean Systems, which helped to extend oilfield services activities outside the United States of America, in 1978. The exploration and production services of the Lone Star Gas Company were expanded and established as a separate business now carried on by Enserch Exploration and its subsidiaries. In 1976 Enserch acquired and subsequently expanded Ebasco Services Incorporated, a leading company in the design and construction of nuclear and fossil-fuelled electricity generating stations. In 1978, Enserch discontinued its chemical fertiliser business, which had been established in the early 1960s, when it appeared that the business had become subject to wide fluctuations of profitability. In its 1979 Annual Report, Enserch was able to claim that the Corporation had evolved from essentially a large natural gas supplier in Texas with assets of \$0.5 billion to a broad-based energy company with multi-faceted operations conducted both in the United States of America and around the world with assets of \$1.9 billion, this latter figure reaching \$2.2 billion in 1980. Total numbers employed by Enserch increased to over 12,000 in 1976 and over 20,000 in 1980. We were told that the total turnover of Enserch companies outside the United States in 1980 was \$300 million.

Enserch operations

4.3. There are now four main operating divisions concerned respectively with natural gas transmission and distribution (Lone Star Gas Company), petroleum exploration and production (Enserch Exploration Inc), oilfield services (Pool Company and other Enserch subsidiaries) and engineering and construction services (Ebasco Services Incorporated). These are described more fully below.

Natural gas transmission and distribution

4.4. Lone Star Gas Company has evolved into an integrated natural gas transmission and distribution business with more than 1,170,000 customers (21 per cent of total sales go to domestic consumers) and nearly 30,000 miles of natural gas pipeline within a 170,000 square mile area of Texas and Oklahoma, one of the most prosperous and rapidly developing areas of the United States. The company is one of the largest of its kind in the United States. The natural gas pipeline system extends into or near the major gas producing areas of the Texas Gulf Coast, south Texas and the major basin of west Texas. Lone Star has access to sources of natural gas amounting on the latest estimate to about 4,700 billion cubic feet and in 1980 sold 545 billion cubic feet of natural gas. Lone Star's profit in 1980 before interest and tax as a percentage of income (7.1) ranked second among the six substantial Texas natural gas distribution utilities, the weighted average for which was 6.2, according to reports filed with the Texas Railroad Commission.¹

Petroleum exploration and production

4.5. Enserch Exploration engages in geological and geophysical studies of potential oil and gas fields, and also of other mineral deposits; negotiates and acquires leases for the exploitation of minerals, and drills exploratory and development wells; operates production and injection wells; and processes natural gas for the recovery and sale of liquids. In the early 1970s, it gained a reputation for its pioneer efforts in drilling to world-record depths. The company currently owns interests in approximately 1,960 oil wells and 1,600 gas wells, owns and operates 16 gas processing plants and has a partial interest in nine other such plants, and, at 1 January 1981, possessed estimated reserves of 521 billion cubic feet of gas and 62 million barrels of oil and natural gas liquids.

4.6. Activities outside the United States include operations in Brazil, Gabon, Tunisia and in the United Kingdom and adjoining waters. The latter includes a 12 per cent interest in a production licence covering about 200,000 acres in the Western Approaches in which a well is expected to be drilled within about a year; a 17.5 per cent interest in a seventh round licence in the mature area of the United Kingdom sector of the North Sea; an option to acquire a 10 per cent interest in a block in the Viking Graben area of the United Kingdom North Sea sector; and interests ranging from 6.25 per cent to 8.5 per cent in 10 blocks or parts of blocks on the Netherlands continental shelf.

¹ The relevant regulatory authority for gas utilities in the State of Texas.

Oil field services

4.7. Pool Company carries out land and offshore well servicing operations in the United States of America and overseas. Activities include the construction, operation, maintenance and servicing of land and offshore drilling rigs and related equipment, and mine development and mineral exploration drilling. The company owns and operates over 380 rigs and expects to be operating 500 rigs by the end of 1981. This is claimed to be the world's largest fleet of rigs. This business segment has developed rapidly since 1972, the year in which Pool joined Enserch, from a turnover of \$10 million to over \$450 million in 1980, with operating profit before interest and tax in that year of \$41 million, Enserch having invested about \$500 million in the development of the business.

4.8. Technological development of rig construction (the Minimum Space Platform Rig) has enabled the company to gain a major share of the offshore drilling market in the Gulf of Mexico and offshore California. Pool's international operations are conducted through Pool-Intairdril, which operates in Italy and the Adriatic, Abu Dhabi, Spain, Australia, Colombia, Ecuador, Libya, Oman and Indonesia, and also through joint venture companies in Trinidad and Saudi Arabia (Pool Arabia which operates more rigs in Saudi Arabia than any other company). Further operations will begin in the near future in the Persian Gulf, and Enserch says that through Pool it has a strong position and good reputation in that and other oil-producing areas.

4.9. *Oiltools International Ltd* distributes equipment in centres outside the United States of America including the United Kingdom, Germany, Holland, Spain, Egypt, Libya, the United Arab Emirates, Saudi Arabia, Oman, Qatar, Nigeria, Singapore, the Philippines, Malaysia, Indonesia and Brunei. The administrative headquarters is in London and three of its four regional managers are British subjects. *Solus Ocean Systems Inc* provides offshore services (including the inspection and testing of offshore platforms, pipelines and related equipment, the supply of project engineering and manpower services, the design and installation of corrosion protection systems, undersea construction and drilling rig support, and undersea welding) in some 25 countries, including those mentioned at the beginning of this paragraph and Brazil, Chile, Fiji, Honduras, India, Norway, Trinidad, Taiwan and Venezuela. Enserch says that there is a high level of activity in the United Kingdom, including local purchasing, with regional offices in London and Aberdeen and the employment of some 900 United Kingdom citizens.

Engineering and construction services

4.10. The main activity of Ebasco Services Incorporated (Ebasco) is the design and construction of nuclear and conventional power stations. There are also short-term consulting maintenance and improvement contracts and theoretical and research studies on advanced technology, including new types of energy producing plant. Electric Bond and Share Company was founded in 1905, and Ebasco was later formed to service captive properties of that company. Ebasco broadened its market from 1942 onwards. It was primarily concerned with domestic projects on a cost-reimbursable basis which were still relatively small by today's standards. Through the 1960s the size and

complexity of plants dramatically increased. From 1969 Ebasco's development was hampered by changes of ownership until it was acquired in 1976 by Enserch which provided financial and other support (notably by leaving Ebasco's profits available for use in the business) to encourage expansion in the United States of America and especially abroad. Its headquarters are in New York and its total staff has now increased to over 6,300 (from 4,560 in 1977) of whom over 2,500 are classified as engineering and others include environmental, operational planning, advanced technology and other specialists with varying professional degrees. At the present time on domestic and overseas projects over 2,000 Ebasco personnel are directing work forces comprised of Ebasco craft employees and sub-contractor personnel numbering over 28,000, the aggregate capital cost of the projects being over \$18 billion.

4.11. The role played by Ebasco varies from project to project according to the requirements and capabilities of the client, and ranges from a preliminary feasibility evaluation to complete design, engineering, construction and procurement of the plant to final commissioning and bringing into production. Appendix 3 contains an account of power station services provided by Ebasco. Enserch drew our attention to a number of major projects such as the Waterford Project, an 1,165 megawatt pressurised water reactor being constructed for the Louisiana Power and Light Company at a projected cost of \$1.5 billion, Ebasco's responsibilities involving safety and environmental requirements, engineering, design and related services, cost estimating, purchasing, quality assurance and planning and managing the construction work. Other major projects involve varying degrees of participation according to the particular services provided. We were told that currently Ebasco is responsible for the management of, or has significant involvement in, two projects with a value of \$7 billion each and eight of between \$1 billion and \$3 billion. With the downturn in power station work in the recent period, Ebasco has also looked to short-cycle work¹ (such as upgrading the performance of staff or plant, or studies and 'retrofit' programmes dictated by the Nuclear Regulatory Commission) and oil to coal conversions and the application of computer programmes and electronic controls.

4.12. Most of this work is in the United States of America but Ebasco has been expanding its overseas operations. It now has projects under way to a total contract value of some \$5 billion in Egypt, Greece, South Korea, Mexico, the Philippines, China, Saudi Arabia, Taiwan and Canada. Some of these involve largely advisory or evaluation services but others include overall project management, engineering and construction management responsibility (such as for the Laguna Verde nuclear power station in Mexico). There are regional offices in Greece, Egypt, the Philippines, Saudi Arabia, Taiwan, the Netherlands, Japan and Mexico and others are projected.

4.13. Enserch pointed out that Ebasco is engaged in the type of construction activities where material and labour expenses are largely paid directly by or for the account of the customer. It would appear that it has traditionally been concerned with cost-reimbursable contracts (see paragraph 3.19), which

¹ Broadly, any project that lasts less than two years.

we understand to be the normal procedure in the United States of America. However, we were told that during the second half of the 1970s, because of the slowdown in power plant work, a fiercely competitive market required greater risk-taking by the engineer constructor, in contrast to purely cost-reimbursable type contracts. Reference was made to a \$50 million lump sum contract with the Jacksonville authority, and to four other recent contracts in the domestic market and six overseas which were on a lump sum basis for the provision of services, with potential exposures related to the services provided in each project of amounts estimated to be up to \$1 million. In addition, the total potential liability on each such contract, including liabilities for delays and for the correction of defects, was much greater; and Ebasco's total exposure is greater still, since Ebasco will have a number of such contracts in progress at any one time.

4.14. Ebasco does not have any proprietary technology in the process plant area but drew our attention to a number of specialised features of the business which could be important in that connection. These included a complete service in the assessment, management, control and monitoring of projects to avoid or minimise detrimental effect on the environment. This is provided by the Envirosphere Company which has a professional staff of some 250. Other technologies included desalination (which had helped Ebasco to obtain a contract to act as project manager for the Al Jobail Power and Desalination Plant in Saudi Arabia), corrosion control, computer applications, stress and seismic analysis and business consultancy and risk management services. Abasco explained it had also developed a sophisticated computer-based system (known as EPICS¹) for managing and controlling large scale contracts running over long periods of time. We were also told of the work of the Advanced Technology and Special Projects Division (with over 160 professional staff) on new sources of power including the development of fusion energy for commercial use, solar power and the use of domestic waste for power and heat generation as well as on nuclear fuel storage and waste disposal. The Process Industrial Division has been formed to concentrate on developing new sources of energy by integrating chemical processes and power engineering and is engaged on feasibility studies for the United States Department of Energy (on the production of petrol and methanol from coal and coal gasification).

The management of Enserch

4.15. The Board of Directors of Enserch Corporation consists of Mr W C McCord, the Chairman and President of the corporation, and eight other members. None of the directors, apart from Mr McCord, has executive responsibility within the corporation, the role of the Board being to plan and approve broad strategy, and to review budgets and operating performance. The Board members receive regular reports on the corporation's activities, both at Board meetings and during the intervals between those meetings. Enserch maintains a corporate staff of some 200 which is about 1 per cent of total Enserch employees. The staff is responsible for dealing with financial, legal and administrative matters affecting the corporation as a whole. Each of those functions is headed by a Senior Vice-President of Enserch. Mr J

¹ Ebasco Project Information and Control System.

A Scarola (who was in the senior management of Ebasco for many years) is the Senior Vice-President of Enserch in charge of the Engineering and Construction Division. The corporate staff also provides research services to Enserch management on matters such as Enserch corporate plans, corporate development, overall economic prospects and the long-term development of the various markets in which Enserch companies operate.

4.16. In 1975 the management structure was radically re-organized and decentralised so as to take account of Enserch's wider and more diversified activities by placing strong emphasis on the autonomy of the managements of the various operating units. Enserch explained to us that its management system seeks to give the operating units all the advantages that they would enjoy if they were independent companies, while making available to them the financial and other business support that comes from association with a strong and broadly-based group such as Enserch.

4.17. Each operating company has its own executive Board of Directors, composed partly of members of the executive management of the operating company and partly of executives of Enserch including Mr McCord. All the operating companies have a full complement of functional and operating staff, and are responsible for the whole range of their own activities, including the annual budget and forward plans and all accounting and financial functions apart from fund raising. Contact with Enserch is maintained by the presence on the Board of Enserch representatives; by the budgeting and review processes (see paragraphs 4.24-4.25) and by occasional informal discussion (usually by telephone) between the Chief Executive of the operating company and the Chairman or other principal executives of Enserch. Enserch told us that it does not seek to involve itself in the day-to-day management of any of its subsidiaries.

4.18. The Board of Ebasco is composed principally of Ebasco personnel, the members being Mr R J Sherman (Chairman of the Ebasco Board and formerly Chief Executive of Ebasco), the six principal executive officers of the Ebasco company and Mr McCord, Mr Scarola and Dr Sanford R Singer (Senior Vice-President, Finance and Corporate Development, Enserch). Mr Scarola, Mr Sherman and five of the six principal executive officers were employed by Ebasco or its affiliates before that company was acquired by Enserch. An account of the production and approval of plans and budgets and of monitoring and review of performance through monthly financial statements is contained in paragraphs 4.24-4.25.

4.19. Enserch said that it was intended to follow the pattern described in paragraph 4.17 in the case of Davy, if the merger took place, apart from the establishment of a joint board or committee of Davy and Ebasco personnel with some Enserch participation. The functions of this committee, and other post-merger arrangements, were summarised by Enserch in the document reproduced as Appendix 4. Generally, Enserch stated that it was their intention that Davy should continue to operate as a separate business from its existing locations under its existing name and management and would continue to have a majority of United Kingdom citizens as executive and non-executive directors. It would be responsible, like other Enserch operating companies,

for making its own decisions about the contracts it should seek and execute within broad limits established in agreement with Enserch.

Financial information

4.20. In the year ended 31 December 1980 Enserch earned operating profit before interest and tax of \$300 million on turnover of \$2,695 million; profit after interest and tax amounted to \$150 million. Summaries of Enserch's statement of consolidated profit, balance sheets and statements of source and application of funds, covering the five years to 31 December 1980, are set out in Appendices 5, 6, 7 and 8 respectively.

4.21. Enserch's policy of diversification described in paragraphs 4.1-4.2 may be illustrated, first, by a summary of turnover in its major business segments over the last five years (Table 4.2) and, secondly, by a summary of the related operating profits before interest and tax over the same period (Table 4.3).

TABLE 4.2 Enserch turnover

	Year ended 31 December				
	1976 \$m	1977 \$m	1978 \$m	1979 \$m	1980 \$m
Natural gas transmission and distribution	756	918	1,032	1,227	1,438
Engineering and construction services	73*	206	301	490	530
Petroleum exploration and production	187	207	170	223	324
Oil field services	86	124	218	323	454
Other (including eliminations)	(47)	(54)	(37)	(25)	(51)
Total	1,055	1,401	1,684	2,238	2,695

Source: Enserch Corporation

* Operations since 6 August 1976, date of acquisition.

TABLE 4.3 Enserch operating profits

	Year ended 31 December				
	1976 \$m	1977 \$m	1978 \$m	1979 \$m	1980 \$m
Natural gas transmission and distribution	61	71	68	94	122
Engineering and construction services	6*	21	24	31	32
Petroleum exploration and production	35	42	35	63	106
Oil field services	15	21	18	17	41
Other	4	1	5	3	(1)
Total	121	156	150	208	300

Source: Enserch Corporation

* Operations since 6 August 1976, date of acquisition.

In 1976 turnover in the natural gas division represented over 70 per cent of the total and had fallen to 53 per cent in 1980. The proportion of profits also dropped from 50 per cent of the total in 1976 to 41 per cent in 1980. The Engineering and Construction Services Division (Ebasco) represented 20 per cent of total 1980 turnover and some 11 per cent of the operating profits. Ebasco's proportion of group turnover has increased from 15 per cent in 1977, the first full year of operation under Enserch, to the current level but the proportion of operating profits has fallen back a little over the period, since they provided about 13 per cent of the total in 1977. This is partly

because the market for electric power plant construction in the United States has been depressed in recent years, although the percentage figures are also affected by the sharp growth of the other Enserch business segments during the period. The overall profit record of the group has improved with significant increases in profits in all business segments. Enserch stated that the growth in earnings over the three-year period ending 31 December 1980 reflects the expansion of existing operations and business acquisitions, as well as the effects of inflation.

4.22. The statement of sources and applications of funds at Appendix 8 shows that operations have contributed 44 per cent of the total funds applied during the five years up to 1980. There has been some fluctuation in the funds provided by operations and other sources. Contributions from continuing operations have steadily risen from \$132 million to \$286 million with the largest increase of \$81 million in 1980, while funds from other sources have fluctuated, depending on the group's requirements, within the range \$89 million in 1977 and \$369 million in 1978, the contribution in 1980 being \$316 million. These latter funds have been provided mainly by issues of common stock and preferred stock (\$293 million net during the period 1976-80) and issues of long-term debt (\$90 million net during the same period). We were told that Enserch's investment grade ratings reflect its ability to obtain capital from a wide array of sources, in different markets, and the flexibility it possesses with regard to usage of such markets. Enserch expects to derive funds in the future from sources similar to those used in the past, the magnitude of contributions from each source being dependent upon conditions in the financial markets at the time. The group's strong balance sheet position, combined with its oil and gas reserves, leads Enserch to be confident that it will have the resources available to meet its planned requirements and take advantage of any new business opportunities.

4.23. Appendix 9 sets out Ebasco's trading results for the five years up to 31 December 1980. A full year's result is shown for 1976 although Enserch did not acquire Ebasco until 6 August 1976; the proportion attributable to the period that Ebasco has been under the control of Enserch is shown in Tables 4.2 and 4.3. The minor differences in operating profits are mainly in respect of corporate charges made by Enserch including amortisation of goodwill and other purchase adjustments.

4.24. The budget-setting discipline within the Enserch group referred to in paragraph 4.17 provides for each operating company to produce an annual plan that consists of a specific budget, month by month, for the following year, and updated forecasts for four further years. The management of each operating company produces its plan, which is then informally discussed by the chief executive of the unit and the Chairman of Enserch, prior to review by the board of the operating company. When approved by the respective company boards, the plans and budgets are consolidated by Enserch into the Enserch Corporation plan and budget, which then goes for final approval to the Enserch Board of Directors.

4.25. Monitoring and review of performance against budget takes place through the monthly financial statements that operating companies submit to Enserch. These statements set out the month's performance compared with budget and the previous year's actual results. These form the basis of the regular reports made to the Board of Enserch on the overall performance of the corporation. In addition to the financial reports, every fortnight (in some cases every month) the executive head of each operating company provides to the Chairman of Enserch a brief written report that sets out the current progress of the business against budget, an estimate of what the following month's results are likely to be and a projection of cash requirements, and also highlights any particular opportunities or difficulties facing the company. We saw examples of these fortnightly reports prepared by Ebasco.

4.26. The objective of Enserch's corporate cash management practices is to ensure that available cash is fully utilised at all times. As part of the annual budgeting process, each Enserch operating unit submits a projection of its cash surplus or requirements for the budget period. The cash forecasts of all the operating units are combined to form the consolidated budget that is approved by the Enserch board, and any finance required is arranged at the corporate level. This follows group policy which regards central fund raising as being cheaper and providing better control. It is considered that there are two main features of the retention of cash: first, in providing confidence and substance in the subsidiary for a client and, secondly, in reflecting commercial judgment that cash must also be put to effective use. Every year each subsidiary's capital structure is reviewed and this review includes the cash to be employed in the business. To the extent that a subsidiary requires cash over this basic level it is charged interest on the loan from central group resources. Conversely, the subsidiary receives interest on any surplus funds it generates which are provided to central group resources. In this way Enserch endeavours to deploy cash in the most effective way. With regard to the matter of confidence, it is contended that a client can look for comfort beyond the immediate subsidiary to the Enserch group. For example, although Ebasco has not paid a dividend to Enserch since being acquired in 1976, it has provided \$35 million to the group, described in the balance sheet as 'Notes Receivable—Parent'. Therefore, in the absence of a significant level of cash in Ebasco a client can gain reassurance by reference to the Enserch balance sheet and the overall financial character of the organisation.

4.27. Capital expenditure authorisation procedures fall into two stages. Initially, in conformity with group budgeting practice prior to the start of a financial year, each operating company prepares a capital budget that is critically appraised at local and group level. The separate budgets, amended as necessary, are then agreed by the individual companies, approved by the Enserch Board, and consolidated into a group capital budget. A specific capital expenditure proposal is examined by reference to a number of criteria. These include discounted cash flow assessment, return on average investment though its expected life, and a calculation of the pay-back period in relation to the intended capital investment. If all criteria are regarded as being met approval would normally be given, but if one or more method of assessment indicated a shortfall against a desired yardstick the project would demand a close examination by management of the expected benefits to be derived therefrom

before a decision could be reached. Once a project is included in the budget and the necessary formalities have been complied with, a subsidiary can proceed to incur the relevant expenditure to limits ranging up to \$5 million without being required to obtain spending authorisation from Enserch. The chief operating officer of each major operating company has authority to supplement the budget by up to \$250,000 on any individual item provided that total supplements to his budget do not exceed \$1 million in any one year.

4.28. We obtained a description of the Enserch internal audit procedures. This showed that internal audit staff have responsibility for ensuring that all significant organisations within the group are reviewed at appropriate intervals to determine whether they are effectively carrying out their duties of financial planning, custody and control in accordance with management instructions and corporate policies. A secondary objective is to assist the external auditors. Formal audit reports are prepared and submitted to management no later than 15 working days after the completion of each audit. The general auditor, as head of the internal audit function, meets the audit committee of the Enserch Board of directors at least twice a year.

4.29. We wrote to the external auditors with a view to confirming the general effectiveness of the internal control techniques and the assistance they gained from being able to rely upon the internal audit work programme for the purposes of their external audit. In their response the external auditors stated that their examination of the internal accounting controls disclosed that they were effective and that they had found no conditions that represented material weaknesses in those controls. Enserch's domestic internal audit department functioned as a part of the system of internal accounting controls, which was considered by them in the evaluation of such controls, rather than lending direct assistance to them in their examination. They relied directly on the work of Enserch's international internal audit department in performing the audit of two overseas locations of a subsidiary of the corporation. The work of the internal audit department had also proved helpful in the examination of various employee benefits plans for Enserch.