Government Policy and the Nationalised Gas Industry

Colin Robinson

Surrey Energy Economics Centre
Discussion Paper
Number 22
University of Surrey
April 1985

GOVERNMENT POLICY

AND THE NATIONALISED GAS INDUSTRY

Colin Robinson

Evidence presented to House of Commons
Select Committee on Energy

January 1985

1. Recent controversies and government policy

For some years, controversy has surrounded the activities of the British nationalised gas industry. Its pricing policies to consumers have at times been attacked, especially by industrialists; offshore gas producers have complained that the British Gas Corporation (BGC) has exploited monopsony power so as to depress the prices they have received; and relations with the government have been uneasy, particularly under the Conservative administrations since 1979. Disputes with the government have concerned, for example, the introduction of the gas levy in 1981, the removal (without compensation) from BGC of its North Sea oil interests and the sale of its half share in the Wytch Farm onshore oilfield. Most recently, there has been a long-running and

increasingly public argument - involving BGC, the British and Norwegian governments and the oil companies - over the Corporation's plan to import gas from the Norwegian Sleipner field.

In pointing to the number of disputes which have arisen I do not wish to imply that the management of the nationalised gas industry has been primarily responsible. Nor do I suggest that the industry is alone in the nationalised sector in being the subject of controversy. It seems to me inherent in nationalisation, at least in the form it has taken in Britain, that it should lead to deep differences of opinion, conflict between nationalised corporations and government and extensive public debate. Nationalised industries take on corporate identities and pursue corporate objectives which frequently differ from the aims of the government of the day and from the "national interest" goals which it was once assumed by idealists that "publicly owned" industries would follow. Clashes of objectives and generally ill-defined relationships with government breed political interference and the politicisation of major decisions. The industry, its private sector competitors and suppliers and consumer organisations are then naturally led to seek political solutions (by various forms of lobbying) to the problems they perceive. Furthermore, because most of the industries are so large and their operations affect so many people, the media are quick to publicise any failings and any disputes which occur.

The general problems which beset all nationalised industries have certainly affected the gas industry. They should, however, be distinguished from specific difficulties which have emerged in the British gas market as direct or indirect consequences of government policies towards gas. The prime source of those difficulties is, in my view, the imposition by governments in the 1960s and 1970s of a market structure in which BGC and its predecessors (the Gas Council and Area Boards) had a dominant position. The high degree of monopsony and monopoly power which the nationalised gas industry was then allowed had a number of adverse effects which are explained below. Then, with the advent of the Thatcher administrations from 1979 onwards, the attempts made to reduce BGC's dominant rôle were, not surprisingly, resisted by the Corporation and there was conflict between it, the government and the oil companies.

In this paper I argue that the latest set of gas industry problems to arise - the various issues surrounding the proposed import of Sleipner gas, including the dispute over future gas demand in Britain, the size of indigenous supplies, whether or not there should be greater freedom to export and import gas, and the security of various supply sources - should not be seen in isolation. All these problems stem essentially from failings in government policy and their resolution therefore depends on fundamental policy change, not on striking some compromise in this instance among the various parties involved. Similar problems will undoubtedly arise in future unless the policy change occurs.

The paper begins with a brief sketch of the development of governnment policy towards the gas industry, mainly since 1960, so as to place current issues in historical perspective.

2. A historical perspective on government policy

In the early post Second World War years, the British gas industry experienced little growth. There was no indigenous natural gas and the industry's main raw material for town gas manufacture was home-produced coal, rising prices of which made it very difficult for gas to compete with other fuels. But in the gas industry, as elsewhere, rising coal prices stimulated technological change which allowed the substitution of oil for coal; by the early 1960s the industry was switching to the new oil gasification processes, costs were reduced and sales began to increase. The period of substantial oil usage was, however, brief. In 1965 the first discovery of natural gas (the West Sole field) was made in the Southern Basin of the North Sea, to be followed by a number of larger finds in 1966 and 1967. On the basis of these discoveries, the (then) Gas Council and Area Boards converted their transmission and distribution systems and consumers' appliances to natural gas and a period of rapidly expanding gas sales ensued. In 1965, total gas sales in Britain at about 3350 million therms were the equivalent of only some

900 million cubic feet per day (cfd) of natural gas. The industry planned to quadruple sales in ten years and it came close to achieving that target despite the adverse economic conditions of the 1970s. By 1984, gas sales had risen to about 4800 million cfd.

The government's policy response to the discovery of North Sea gas was to give the nationalised gas industry considerable monopsony power[1], in addition to the monopoly it already had of the distribution of gas by pipeline in Britain. Production of gas was, in the late 1960s, "privatised" in the sense that gas was no longer a product manufactured by a nationalised corporation; instead it was extracted in "natural" form by various (mainly private sector) companies from under the North Sea. However, privatisation in this case did not mean more competition. Licences to explore for and produce offshore gas had been allocated by government via a "discretionary" system, with only minimal rental payments[2]. The virtually free issue of valuable licences meant that companies which made discoveries were likely to earn substantial profits if they were allowed to sell their gas at the going market price, thus realising the "rent" from production of their depleting resource. To avoid rent going to the companies, the nationalised gas industry was effectively designated as rent-collector by the government through a restrictive interpretation of the relevant legislation (Section 9 of the 1964 Continental Shelf Act). Section 9 had actually appeared to leave room for the companies to sell gas direct to

industry if the Gas Council would not pay a "reasonable price", but in practice it was made known that the Gas Council was to be a monopsonist: there was virtually no chance of selling any gas discovered to any organisation other than the Council. Neither direct sales to industry nor exports were to be permitted. Thus the companies which had found gas were placed in an untenable negotiating position and a very low price for natural gas was established at about 1.2 pence per therm at the British coast (approximately two-thirds of the then cif price of imported crude oil) with only limited escalation provision.

Many of the problems which have arisen in the gas industry in recent years seem to me to be attributable, directly or indirectly, to the policy decisions of the mid-1960s - in particular, to the initial giveaway of licences and then the attempted corrective of allowing considerable monopsony and monopoly power to the nationalised gas industry. Below are two illustrations from the 1970s of the adverse results of the policy decisions:

2.1 The hiatus in exploration effort

Because the prices paid to the oil companies in the gas contracts of the late 1960s were so low and because, given the Gas Corporation's monopsony, there seemed little prospect of significantly higher prices, the impact on exploration activity in the southern North Sea was very serious. For a period of eleven years, from 1971 to 1981, exploration activity in the Southern

Basin of the North Sea ("East of England" in the Department of Energy's terminology) was minimal (Table 1). By 1970, the oil companies had a more attractive alternative to exploring for gas which, if finds were made, had to be sold to the (then) Gas Council. Government policy towards oil discoveries was quite different from its policy on gas fields. There was no nationalised monopsonist for oil and any oil discovered could, for that reason, be sold at the world market price. Oil companies therefore had every incentive to desert the Southern Basin, except to the extent that minimum drilling commitments had to be fulfilled; they moved north to drill off mainland Scotland, Orkney and Shetland even though waters were deeper, the weather worse and costs were higher.

Two events seem eventually (by 1979-80) to have induced BGC to offer higher prices for gas and thereby to have re-stimulated gas exploration activity in the southern area. One was the concern which BGC seems to have felt by the late 1970s that the long hiatus in exploratory drilling would produce a gas shortage in the late 1980s and 1990s. The second was passage of the Oil and Gas (Enterprise) Act of 1982 which, inter alia, gave companies with gas reserves not already committed to BGC the opportunity to sell direct to larger consumers in Britain, thus circumventing the Corporation's monopsony and monopoly powers. Although no direct sales have taken place and the procedure for making such sales

appears cumbersome, the introduction of potential competition for BGC and the implied change in government attitude towards competition in the gas market were probably additional reasons why the Corporation offered higher prices to the gas producers.

2.2 Failure to collect the "rent"

The intention of governments in the 1960s that BGC should act as a collector of the rent accruing from North Sea gas does not appear to have worked out as they anticipated. Presumably governments believed that BGC, which received natural gas from the North Sea producers at well below market prices, would resell at prices similar to those being charged for competitive fuels; the resulting profits could then be diverted to the Treasury by taxation or some other means. In practice, as I have argued elsewhere[3], although very considerable rent was available to be gathered as oil prices rose sharply in the 1970s, governments do not seem to have been very successful in appropriating it. It would have been unlikely behaviour for BGC (or any other large private or nationalised corporation) to have acted passively as a rent-collection instrument of government in the powerful market circumstances in which it was placed. There was probably some limited under-pricing of gas to household consumers which channelled some of the rent to those consumers, stimulated household demand, raised the costs of meeting peak demand and increased the rate of depletion of gas reserves. But, more important, it is probable that the lack of competitive pressure on BGC inflated its costs so that its profits turned out to be small

relative to the rent available from North Sea gas. It is a criticism of government rather than of British Gas to say that official policy evidently resulted in BGC's paying so low a price for natural gas that most of the pre-existing pressure to hold down costs must have been lifted. In 1981 there was a belated recognition that the policy, pursued since the late 1960s, of using BGC as rent-collector had been unsuccessful when the government introduced the gas levy on PRT-exempt gas (that is, gas produced under contracts signed with BGC prior to end June 1975).

3. Attempts to reduce BGC's dominant position

Given the history of government gas policy since the early 1960s, it is entirely understandable that attempts to reduce BGC's market power by the two Thatcher administrations since 1979 should have been resisted by the Corporation. Because of the policies of successive governments over a period of fifteen years or so, BGC had very substantial monopoly and monopsony power; it had also acquired useful offshore and onshore oil-bearing acreage in addition to its gas interests. The low purchase price set for offshore gas gave the Corporation a big competitive advantage over the other energy supply industries and allowed it to capture rent from the extraction of offshore gas. BGC became the dominant force in gas decision-making in the North Sea. Its price offers

to producers were important determinants of their willingness to explore for gas and to develop any finds they might make; its price policy towards British consumers, its advertising and its other marketing efforts were among the most significant determinants of the demand for gas.

Thus BGC had a very important influence on the finding rate, on the extent to which discoveries were developed and on the rate at which gas reserves were depleted. BGC was at that time much more than an instrument for executing government gas depletion policy. Indeed, after the early years of gas production (up to the mid-1970s) when governments encouraged as rapid a build-up of gas supplies as possible[4], there appears to have been no clear government policy towards gas depletion. Because of the government-inspired dominant position of BGC, it was inevitable that the Corporation would fill this policy vacuum and become a very powerful force in the North Sea. It was hardly likely that BGC would readily relinquish the position it had built up, largely at government behest.

4. Changing government policy

Nevertheless, although I sympathise with the feelings of those in BGC who believe they have been penalised for success, it seems to me that government policy in the 1960s and 1970s was misguided.

The present government's efforts to reduce BGC's market power therefore appear to me to be along the right lines and I would argue that further, more radical steps in the same direction are required. The general aim of the suggestions I outline below is to promote more competition in the British gas market, in effect "privatising", though without necessarily introducing private share ownership into BGC. In stating a case for a more competitive market, I recognise that full-blooded competition is never likely to exist in gas. To illustrate, the relatively high costs of long distance transport reduce the impact of international competition, particularly for an island economy; the supply side of the market is likely to be oligopolistic; and there is considerable inertia on the demand side because of the "tied" nature of fuel demand for existing consumers of gas. Nevertheless, competition has been deliberately reduced by acts of government policy and, as we have seen, problems have arisen which apparently are a consequence of the suppression of competitive forces. I would therefore favour the following policy changes.

4.1 Collecting the rent

Trying to collect rent by granting monopsony rights to a nationalised corporation so that prices are depressed is never likely to be effective. Prices paid to the corporation's suppliers will be reduced, so that supplies will be restricted, and demand may be stimulated depending on the corporation's price policy. However, the experience of the 1970s suggests that the State will then face the difficult problem of extracting the

rent from the nationalised corporation which it has placed in so powerful a position. It seems to me futile to shift rent from big private corporations to a big nationalised corporation. Rent should be collected by the State directly from the gas producers either by means of competitive bidding for offshore licences (which is the method I would favour, but which is opposed by the civil service and many of the oil companies) or through the tax system (as is the case with oil).

4.2 Pricing

A closer approximation to "market pricing" is required. The low prices paid to natural gas producers in the 1970s had the effect of drastically reducing exploration activity, as we have seen, so that less is known about reserves than if market prices had been paid for gas. Gas flaring was also encouraged (because the opportunity cost of flaring was so low) so that controls on flaring had to be introduced. Furthermore, low prices meant that there was little incentive for gas producers to co-operate on gas gathering pipelines schemes. There may also have been some over-stimulation of demand (relative to what demand would have been at market prices) because BGC seems to have under-priced its product in the household market. But how can one determine the "market price" of natural gas in Britain?

4.3 Encouraging competition

I doubt whether an attempt to impose a market price for gas by government (for instance, by reference to prices in other West European countries) would be successful. A centrally-determined price system would, in any case, be inflexible which would

undermine one of the main advantages of market pricing - the ability to respond quickly to changing circumstances. It is also unlikely that attempts to arrive at a market price by some arbitration or appeal mechanism would be successful. I would favour changing the structure of the market so that a reasonable approximation to a competitive market price naturally emerges rather than trying to guess at the price without having the competitive market. Essentially that would mean a fundamental change in BGC's privileged purchasing status for gas produced offshore. As well as allowing direct sales by gas producers to large British consumers, the producers would need freedom to export gas so that BGC had to bid for its supplies in competition with other European gas distributors.

4.4 Freeing foreign trade in gas

The present UK foreign trade position in gas is a curious one. It seems barely compatible with the spirit of international trade regulations, although it is in some ways the reverse of the stance normally adopted by industrial countries pursuing restrictive trade policies[5]. Instead of limiting imports and permitting exports, Britain in effect bans gas exports (by imposing a "landing requirement") but allows imports which have so far always come via BGC. This is a formula for creating considerable uncertainty among the producers and a "stop-go" exploration and development programme. In the 1970s there was a "stop" period because of the low price policy. As BGC offered higher prices from about 1979 onwards the "go" period began, but by then BGC perceived a probable shortfall of indigenous supplies in the late

1980s (a consequence of the exploration hiatus which government policy had caused in the 1970s) and began to contemplate increased imports. Because the producers cannot export but BGC can import gas it only needs the announcement of a large BGC import proposal, such as Sleipner, to generate expectations that BGC offer prices will be depressed and to lead eventually to another "stop" in which exploration activity declines and some finds go undeveloped. This is the context within which the Sleipner dispute should be seen. It is not an isolated problem which can be resolved merely by deciding whose forecasts of gas demand and indigenous supplies are correct and then compromising with the Norwegians on import volumes and the distribution of tax revenues. It is inherent in the present system that any substantial import proposal will always adversely affect gas exploration and development activity; because indigenous producers are denied the right to export, more imports mean that indigenous output will be reduced relative to previous expectations.

Recent British restrictions on international trade in gas also cause undue weight to be placed on highly uncertain forecasts of gas demand and indigenous supplies. If trade were more freely permitted it should be capable of correcting for surpluses and deficiencies except in extreme circumstances. But, under a régime which insists on keeping "British" gas for the British market and topping up with imports channelled via a monopsonist, the forecasts of that monopsonist become a key factor in the market. The gap between forecast demand and forecast indigenous supply

assumes considerable importance and yet it is a number surrounded by such a large error margin that it should be disregarded as a guide to serious decision-making. As it happens, there is something of a consensus at present about British gas demand towards the end of the century (in the range 5.5 to 6.25 billion cubic feet per day), though more disagreement about the likely rate of development of indigenous supplies[6]. However, I do not find the demand consensus particularly encouraging, since over the last fifteen years the consensus about future events in most areas of the energy market has almost invariably been seriously wrong.

4.5 Reducing the politicisation of the gas market

It seems to me instructive to consider why so many gas demand and supply forecasts should have appeared since it became known that the Sleipner proposal was under negotiation. The probable reason relates to the politicisation of gas decision-making which is a feature of the present régime and which would be much reduced under a more market-related system. It is obvious that the present government, "non-interventionist" though it may claim to be, is deeply involved in the Sleipner decision; it is intervening principally to avoid the damage which the gas trade policy inherited from previous governments would otherwise cause. Therefore all the interested parties know that they can achieve substantial returns if they can influence the government's decision one way or another. Producing forecasts which show a gap which Sleipner must fill, or no gap because of the sufficiency of indigenous supplies, is one means of exerting influence. I say this not in criticism of BGC, the oil companies or the consultants

concerned but of government policy which has allowed the gas market to become so politicised that lobbying is seen to be potentially such a profitable activity.

4.6 The importance of freeing gas trade

The most important change which needs to be made to government gas policy is to free foreign trade in gas (by removing the landing requirement) so as to bring Britain into the international gas market by means of pipeline links to Western Europe. Companies finding gas should be allowed to sell either to BGC, or direct to large consumers in Britain or for export. Companies which wished to supply large British consumers should also be permitted to import natural gas. A two-way trade would then develop in which some British gas would be exported and there would probably be imports from various sources not so far used by BGC, such as Holland and the Soviet Union.

The arguments used against freer trade by British Gas (and at times in the past by the Department of Energy) seem to me misconceived. According to BGC[7], exports would involve "a loss of supplies" and should not be allowed because Britain does not have "very large proven reserves of gas"; moreover, higher prices to British gas consumers would inevitably follow. The "loss of supplies" argument is a strange one which, if generalised, would put a complete stop to foreign trade in any commodity. Gas exports earn revenues (much of which, under an efficient rent-collection system, would accrue to government) and will only be undertaken if they are more profitable than supplying the

British market. If exports are not allowed, the opportunity cost is that revenues of both companies and government are reduced because of the depression of prices paid to the producers.

I would contend also that the size of proven reserves is not independent of the foreign trade and market régimes. Proven reserves of gas would now almost certainly be higher if Southern Basin exploration had not been discouraged for so long by BGC's monopsony and monopoly position. Very probably, freer trade in gas would give a considerable stimulus to exploration and development so that more reserves would be proved. The seductive argument that exports cannot be allowed because proven reserves are insufficient is thus unconvincing; proven reserves never will appear sufficient unless there is freedom to trade.

Finally, I do not believe that exports would "inevitably have to be paid for by higher consumer prices" as BGC claims[8]. It would be surprising if, in a more competitive market, the Corporation was unable significantly to reduce the gap between the prices it pays producers and the prices it charges consumers.

4.7 The place of the "public sector" in the gas market

One of the arguments for nationalisation is that the activity in question is a "natural monopoly", because there are considerable economies of scale which make competition costly and inappropriate. So far as I can see, the natural monopoly argument applies only to limited parts of the present nationalised gas industry - to the gas main transmission system and to the supply

of gas to small (mainly household) consumers. Given the policy I have suggested above, in which BGC would be subjected to greater competition, its statutory monopoly (though not its market) would be restricted to the two areas mentioned above. Thus there would be a nationalised "common carrier" type of gas transmission system which could be used, at a charge, by suppliers of gas to markets other than households (which would still be served by a public body or bodies). BGC or its successor, shorn of most of its monopoly/ monopsony powers, would be free to compete with other gas suppliers. In my view, if this more competitive situation were in prospect there would be no reason to strip BGC of any further oil- producing interests it may acquire through exploration. I take it that the removal of oil producing assets which has already occurred was a consequence of government concern about BGC's considerable market power. Nor would a government intent on "privatisation" necessarily decide to sell shares in BGC to the public; more widespread ownership of the Corporation might have advantages but, in my view, "privatisation" would more effectively be accomplished by the competition-promoting measures described above.

4.8 Security of supply considerations

It is sometimes argued that the present régime in the gas market provides a high degree of security of supply: that is, it brings relative freedom from sudden physical shortages and resulting short-term price increases which disrupt economic and social life. There are fears that some overseas suppliers (especially the Soviet Union) might prove unreliable so that greater

dependence on imports would reduce security of supply. There is, to my knowledge, no evidence that the Russians have ever interrupted their gas supplies (though there have been temporary reductions because of severe weather). Those supplies are now a growing and particularly valuable source of foreign exchange since Soviet oil output appears to have passed its maximum. Moreover, as a general principle it seems to me that security is best promoted by diversification of supply sources which avoids undue dependence on any one supplier[9]. All forms of energy, whether indigenous or imported, are subject to interruptions whether through accident, weather conditions, sabotage or attempts to extract higher prices. On the whole, therefore, a variety of supply sources is better than one in enhancing security of supply. One need look no further than the present coal strike to observe how extreme dependence on an indigenous supplier can lead to serious security problems. I think it unlikely that there would be any diminution of the security of British gas supplies if foreign trade in gas were freed - indeed security might well be improved - though I would accept that government should have a watching brief to ensure that no one overseas supply source became dominant.

There is a possible argument for holding some British gas (and other indigenous fuels) in the ground for a very long period in the expectation that such a policy would benefit distant generations by securing their energy supplies. There could,

however, be considerable losses to society in the next ten or twenty years and any very long-run gains are highly uncertain. If, for instance, gas prices can reasonably be expected to fall in real terms (or, at least, not to rise) in the 1980s and 1990s and if society discounts the future at a positive rate, then gains could be made in the near future by exporting gas and investing the proceeds.

4.9 Taxation

I give taxation only a brief mention because it seems unlikely that the present system significantly inhibits gas exploration and development activity. There is a case, however, for applying the 1983 Budget tax changes (that is, the less onerous system for "new" fields) to gas as well as to oil so that small, relatively high cost gas fields are eventually bought into production.

5. Conclusions

The debate on BGC's proposal to import Sleipner gas seems to me quite excessively concerned with supply and demand forecasts. Such forecasts can never be sufficiently accurate to bear the weight which is attached to them under the present system even if one could rely on their being objective (which one cannot). Supply and demand do not exist independently of one another: they interact with each other, with price and with other variables.

Yet it is very difficult to incorporate such interactions even in sophisticated forecasting models.

Although discussion of whose forecasts are nearest to the "truth" is a singularly unhelpful activity, such discussions will recur if policy changes are not made. It is only a question of time before another BGC import proposal appears. If, at that time, BGC is still the sole importer of gas and the producing companies are still not allowed to export there will again be an outcry (in my view, justified) from the producers that UK gas exploration and development activity are being depressed. Rival forecasts will again appear. Yet what is required is not the proliferation of forecasts but an infusion of competition into the presently monopsonised and monopolised British gas market. As I have tried to show in this paper, it is the government policy of suppressing competition which lies at the root of most of the disputes which have appeared in the British gas industry in recent times. A more competitive market, along the lines indicated in 4 above, would provide a stimulus to gas exploration and development and bring pressure for greater efficiency to bear on all market participants.

It would also, in my view, be better to let the gas depletion rate emerge from a more competitive market than have it be determined by British Gas or by the government. For reasons which

I gave in evidence on oil depletion to the Select Committee in November 1981[10] I believe political control of depletion is unlikely to benefit society, primarily because it tends to be influenced unduly by short-term considerations.

Given the unfortunate consequences of government policy in the 1960s and 1970s, there is now probably no alternative but to contract more gas imports via BGC. In effect, policy created a "supply gap" but left no means of filling it except substantial imports, even though those imports would inevitably depress indigenous supplies thus leading eventually to another supply gap. To avoid another "Sleipner dispute" in a few years' time, in my view the counterpart to allowing a new import contract should be to free foreign trade in gas. In that way, Britain would become part of the international gas market, imperfect though that market is, with prices determined in a more competitive framework than now.

References

1. Further explanation is in Colin Robinson, A Policy for Fuel?, Institute of Economic Affairs, 1969; Competition for Fuel, Institute of Economic Affairs, 1971; and 'The Errors of North Sea Policy', Lloyds Bank Review, July 1981.

2. Reasons for discretionary allocation and some of its effects are discussed in Kenneth Dam, Oil Resources, Who gets What How?, Chicago University Press, 1976 and in The Errors of North Sea Policy, op cit.

3. The Errors of North Sea Policy, op cit.

4. See Colin Robinson and Jon Morgan, North Sea Oil in the Future, Macmillan, 1978, especially Chapter 2.

5. Trade policies towards various fuels in the British market are discussed in Eileen Marshall and Colin Robinson, The Economics of Energy Self Sufficiency, Heinemann, 1984, Chapter 6.

6. A British Gas document, Britain's Future Gas Supplies 1985-2000 reviews various recent supply and demand forecasts. In a recent book (Marshall and Robinson, op cit, Chapter 3) we give a range for British natural gas production in the year 2000 of 2700-4800 million cubic feet per day, on the assumption of unchanged government policy. The centre of our range (3750 million cubic feet per day) is towards the lower end of the estimates listed on page 21 of the British Gas document.

7. Ibid, pp 25-27.

8. Ibid, p 27.

9. Marshall and Robinson, op cit, Chapter 5.

10. Colin Robinson, Oil Depletion Policy, Memorandum M363, Select Committee on Energy, Session 1981-82, 30 November 1981.

TABLE 1

EXPLORATION WELLS STARTED EAST OF ENGLAND

1964	1
1965	10
1966	20
1967	35
1968	30
1969	34
1970	12
1971	7
1972	8
1973	7
1974	4
1975	2
1976	3
1977	5
1978	0
1979	0
1980	0
1981	1
1982	9
1983	9

Source: Department of Energy, Development of the Oil and Gas Resources of the United Kingdom (various issues)