

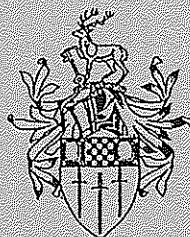
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UK Energy Policy: Findings from Two Surveys

Peter J G Pearson and Roger Fouquet

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Abstract

The purpose of this paper is to provide information on the views of a set of 'experts' about UK energy policy, and to contribute to the debate about energy policy in the UK and elsewhere. The paper summarises the results of two surveys, carried out in November 1992 and December 1994, of the opinions of UK energy professionals. They were asked about the appropriateness and effectiveness of UK energy policy, about what objectives energy policy should seek to achieve and about how they should be achieved. Most respondents said that there should be a long term energy policy, at the level of both the UK and Europe. Such a policy should create a regulatory framework that complements market forces in order to improve the efficiency of energy use and environmental quality, to enhance security of supplies and to reduce the costs of energy supplies. Around two-thirds, however, said that existing UK energy policies were inappropriate and ineffective. There were serious doubts about the effectiveness of the regulation of gas and electricity, particularly the latter. Opinions tended to be somewhat more favourable in 1994 than in 1992. Just under half the respondents wanted nuclear power to occupy a special place in policy, while two-fifths wanted a special place for electricity from renewable sources. While the experts' desired energy policy objectives were broadly similar to those listed by the Government in 1994, the rankings were in many cases different. The energy professionals were not fully convinced that the objectives had been satisfactorily achieved. The paper also draws some wider lessons from the UK's recent policy experience.

Keywords

Energy policy, privatisation, regulation, surveys

1. INTRODUCTION: THE BACKGROUND TO THE SURVEYS¹

The aims of the UK government's energy policy are 'to ensure secure, diverse, and sustainable supplies of energy in forms that people and businesses want, and at competitive prices' (Department of Trade and Industry, 1994, p.2). The balance of energy policy objectives and the means of achieving them have changed dramatically over the last fifteen years. Evaluating the British government's recent policies is both difficult and controversial, not least because a full range of studies has not yet been carried out. The purpose of this paper is to provide information about the views of a set of 'experts' on UK energy policy, and to contribute to the debate about energy policy in the UK and elsewhere. The paper summarises the results of two surveys, carried out in November 1992 and December 1994, of the opinions of UK energy professionals about how appropriately and effectively UK energy policy has been framed and implemented, about what objectives energy policy should seek to achieve and about how they should be achieved. The results carry implications that lie beyond the UK, not least because of the UK's recent particular experience of restructuring, privatisation and re-regulation of its energy industries (MacKerron and Pearson, 1996).

The announcement on 13 October 1992 that British Coal would close 31 of its remaining 50 coal pits, with the consequent loss of 30,000 of its 54,000 employees, led to fierce public controversy over coal and energy policy. By 21 October 1992, and in response to the political pressures, the President of the Board of Trade, Michael Heseltine, had announced the Government's decision to review the pit closures, in the context of wider energy policy. In the light of this decision, and of the inquiries and impending reports of two House of Commons

¹ We are grateful to David Hawdon, Colin Robinson and Paul Stevens for their suggestions and comments on the framing of the survey questionnaires, and to David Hawdon and Colin Robinson for their comments on this paper.

Select Committees (House of Commons Trade and Industry Committee, 1993; House of Commons Employment Select Committee, 1993), it was decided to canvass opinions on UK energy policy from professionals in the energy field. A short, two-page, questionnaire was sent out in the second week of November 1992 to the Surrey Energy Economics Centre (SEEC) mailing list, with a request to return it within one week.² The results were analysed and a brief report submitted to the Trade and Industry Select Committee in December 1992 (Pearson, 1993).

The next two years saw the publication of the Government's *Coal Review* (Department of Trade and Industry, 1993) and subsequently of its first *Energy Report* (Department of Trade and Industry, 1994). There was continued controversy over the regulation of the privatised electricity and gas industries and over energy-related environmental issues, including fossil fuel carbon dioxide emissions. There was also the closure of more than 21 pits, the privatisation of the rump of British Coal, and the announcement in May 1994 of the terms of reference of the government's review of the *Prospects for Nuclear Power*.³ By December 1994, therefore, it was judged appropriate to repeat the survey. Many of the 1992 questions were retained, and new questions were added, in the light of the changes over the period.

The second section of this paper discusses the 1992 survey. The third section discusses the 1994 survey and compares the 1992 and 1994 responses. The fourth section concludes the paper, giving an overall picture of UK energy

² The list had been developed and updated over more than 10 years, to cover a wide cross-section of 'energy professionals', and in particular people in the UK interested in outputs of research, teaching and consultancy in energy economics and policy, such as actual or potential attendees at and contributors to SEEC seminars and conferences, readers of Discussion Papers and other research output, journalists writing on energy, resource or environmental matters for national newspapers and the specialist energy press, and a range of energy specialists who visited SEEC or interacted with its members inside or outside the University.

³ The report was published in 1995 (Department of Trade and Industry and the Scottish Office, 1995).

policy, and commenting on the international implications from the UK's experience.

2. THE 1992 SURVEY

2.1 The Respondents

Of the 542 'energy professionals' on the SEEC mailing list in 1992, 118 returned completed questionnaires. The 21% response rate was acceptable, given the short response-time and the absence of follow-up reminders. For part of the analysis, the respondents were classified into four groups: one-third were from the energy industries; one-third were from a group comprising journalists, consultants and City energy professionals; one-quarter were academics; the remaining one-tenth formed a residual group, including retired energy professionals and current Members of Parliament with a special interest in energy policy (all shares are approximate; see the Appendix for more details of the 1992 and 1994 respondent groups).

2.2 Opinions about UK Energy Policy in December 1992: An Overview

Clear majorities of the respondents were dissatisfied with several aspects of UK policy. More than two-thirds recorded it as 'inappropriate', while three-quarters indicated that it was 'ineffective'. More than half (55%) said that the regulation of the gas industry was ineffective, while a much larger four-fifths said the same for electricity regulation. Seventy per cent of the respondents wanted more competition in gas, while 60% wanted more in electricity.

Dissatisfaction with energy policy did not mean, however, that the respondents saw no need for policy: over 90% said that there was 'a need for a UK energy policy'. Of this dominant majority, more than 70% said that the policy should consist of 'forecasts/scenarios, objectives and measures to achieve and

monitor them', and that the policy time-frame should be more than ten years. Less than 15% said that policy should be made only at the level of the EC; while around 80% said that it should be at the level of the UK or at both levels. More than nine-tenths said that energy policy should aim to complement markets rather than to substitute for them. When asked to rank the objectives of energy policy, the four most popular objectives were (in order): (1) 'reducing the cost of energy supplies'; (2) 'enhancing the security of energy supplies'; (3) 'improving the efficiency of energy use'; and (4) 'improving environmental quality'. All other policy objectives were ranked much lower, including the maintenance of employment, the avoidance of adverse regional economic impacts and the balance of payments. Two other objectives with a relatively low ranking were 'competition' and especially 'privatisation' (although, as one of the respondents noted, it can be argued that these should be categorised as instruments of policy rather than objectives).

2.3 Views about Coal Privatisation and a Special Place for UK Coal

A number of questions in the 1992 survey focused on the content and conduct of coal policy and on the issue of coal privatisation.⁴ One issue which was widely discussed after the initial pit closure announcement was whether the President of the Board of Trade should have more power to intervene in the fuel choice decisions of electricity generators. British Coal's existing contracts with its main customers, the major electricity generators in England and Wales, were due to expire on 31 March 1993 and at the time of the October announcement no new contracts had been negotiated. Moreover, some of the dissatisfaction with electricity regulation noted earlier on the part of coal's proponents may be ascribed to their view of the impact on the market for coal of the 'dash for gas' in electricity generation. The surge in CCGT investment was argued to have been

⁴ For examinations of the background to the coal industry's problems, see the contributions in Pearson (1991). See also O'Donnell and Nolan (1996) and Parker (1994, 1996).

partly stimulated by the form of privatisation of the electricity industry into a potentially powerful duopoly of non-nuclear generators, National Power and PowerGen, faced by the regional electricity companies (RECs) and independent power producers.⁵ Sixty per cent of the 1992 survey respondents thought that the President of the Board of Trade should have more power to intervene in the fuel choice decisions of electricity generators.

A somewhat smaller proportion of the respondents, just over half (54%), said that the privatisation of British Coal should proceed, while 38% said that it should not. Nearly three-fifths also said that domestic coal should 'occupy a special place in UK energy policy'. Views on coal privatisation were linked to some other attitudes in a broadly consistent way. For example, while three-quarters of those against coal privatisation wanted the President of the Board of Trade to have more powers to intervene in the generators' fuel choices, nearly three-quarters of those against his having more powers wanted coal privatisation. Moreover, while nearly four-fifths of those against privatisation wanted a special place for domestic coal, those for privatisation were evenly split in their 'special place' responses.

Of the almost 60% who said that domestic coal should occupy a special place, the main reason cited was security of supply (linked by some with fuel diversity). Other important reasons were social/employment (some linked the employment concern with economic recession but most did not), and the balance of payments. Also occasionally cited was the view that since the coal pits were in place, they should be used. Environment was given as a reason by some for investing in clean-burn coal technology, while for others it was a reason for using less coal. This kind of pattern of negative and positive reasons associated with

⁵ For more analysis of the growth in CCGT capacity to about one-fifth of existing capacity, see Newbery (1996). Newbery (1994) concluded that while tightening sulphur dioxide emission limits arising from the UN second Sulphur Protocol (agreed in June 1994) would have required a shift of this size by the year 2000, about half of the new capacity could usefully have been delayed for several years.

the responses to the 'special place' question was also observed in responses to the question in the 1994 survey about a special place for nuclear electricity, discussed below.

It is interesting to observe that the wider macroeconomic and social objectives to which those who saw a need for UK energy policy had assigned a low ranking, figured significantly in the minds of a number of those who wanted a special place for coal.⁶ Of course, it is one thing to cite a general set of objectives for policy-making but quite another to be confronted with a particular concrete policy decision and its attendant economic, social and political consequences.

A wide variety of methods for achieving the special place for domestic coal was cited. These included: intervention to ensure continuing long-term contracts with the electricity generators, restraining the use of gas in power generation (sometimes by 'more effective' regulation), adjustment of the nuclear Non Fossil Fuel Obligation (NFFO) (sometimes to remove the 'nuclear subsidy' funded through the fossil fuel levy⁷), more government funding for 'clean coal' technologies, phased subsidies for coal, pricing all fuels to reflect their external costs, import restrictions, privatisation, and closure of 'uneconomic' mines.

Respondents were also asked whether other energy sources apart from coal should have a special place in UK energy policy. As well as the nearly sixty per cent who replied that coal should have a special place, a little over sixty per cent thought that at least one other source should. For them, the highest ranking clearly was for electricity from renewables (68%), followed by nuclear electricity (44%). We return to this issue later.

⁶ They can also be argued to have been influential in the conduct of UK energy policy over many decades.

⁷For more discussion of the NFFO, the Scottish Nuclear Energy Agreement (NEA), the fossil fuel levy, and the policy changes announced in the May 1995 Nuclear Review, see Department of Trade and Industry and the Scottish Office (1995, Chs. 3 & 9).

2.4 Responses by the Four Groups in 1992

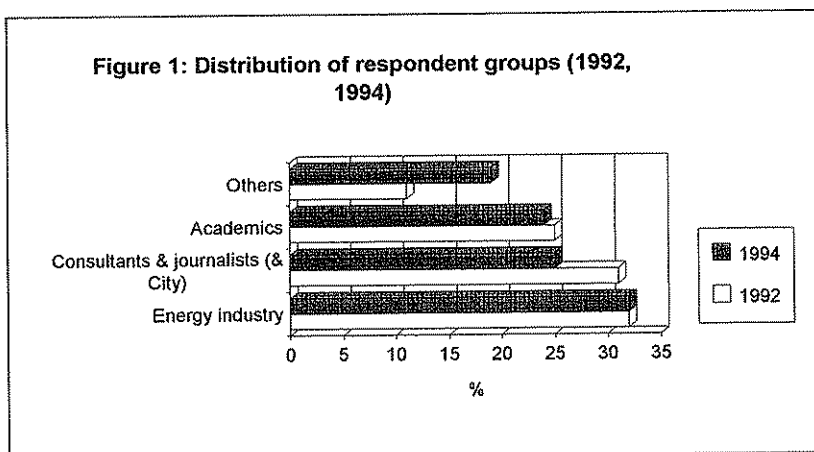
With some significant exceptions, the responses by the four groups of respondents ran on broadly similar lines. Especially when compared with the academic group, however, the energy industry respondents were somewhat less dissatisfied with the appropriateness and effectiveness of present UK energy policy. They were also keener to see more competition in gas and electricity. Attitudes to coal privatisation differed strikingly: while a clear majority of both the energy industry group and the consultant, journalist and City group were in favour of BC privatisation, just over half of the academic group were against it. The academic group was also keenest to see a special place for domestic coal (65%), with the consultant, journalist and City group being the least keen, recording 50% in favour. This latter group was also least in favour of allocating a special place to energy sources other than coal.⁸

3. THE 1994 SURVEY

While the 1994 survey retained many of the 1992 questions, not least for comparability, new ones were added. These included further questions about the regulation of gas and electricity, about the distribution of gains from privatisation, about the quality and provision of information and about the place of nuclear power. Of the 516 questionnaires sent out, 72 were completed and returned. The 14% response rate was substantially lower than the 21% rate for the 1992 survey. The difference may reflect the heightened political debate that followed the dramatic pit closure announcements in October 1992. In December 1994 the Government's nuclear review could not be said to have excited the same

⁸ Also, and in some respects perhaps surprisingly, whereas three-fifths of all respondents chose not to add any comments at the end of the 1992 questionnaire, 72% of the academic group made this choice.

degree of controversy. Thirty-five per cent of those who responded to the 1994 questionnaire also recalled taking part in the 1992 survey. As Figure 1 shows, the distribution of respondents between the four occupational groups in 1994 was broadly similar to that of 1992.⁹ In 1994, however, there were no City respondents (although they formed 6% of the mailing list membership). Partly as a result, the re-named 'consultants and journalists' group's share fell from 31% to 25%, whereas the share of the 'others' group rose from 12% to 19%.

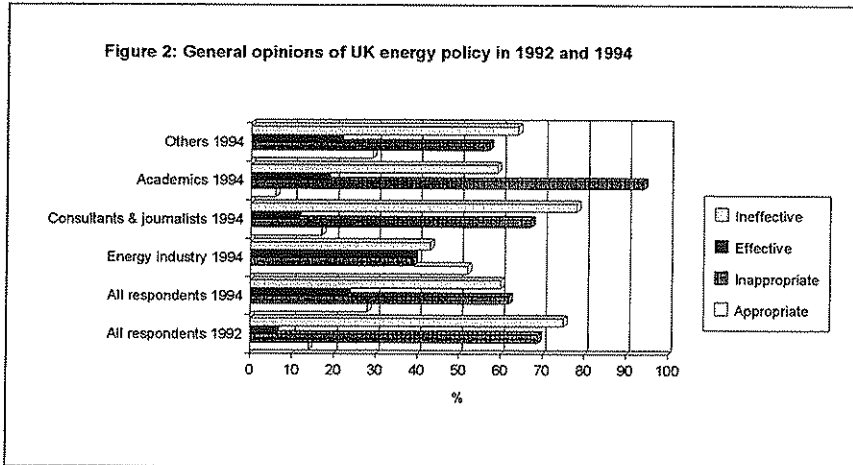


3.1 General Opinions about UK Energy Policy

As Figure 2 shows, in 1994 there was considerable dissatisfaction with UK energy policy: only about a quarter of all the respondents viewed policy as 'appropriate' (28%) and 'effective' (23%). On the other hand, around three-fifths said that UK energy policy was 'inappropriate' (62%) and 'ineffective' (60%). These unsatisfied majorities were, however, lower than in 1992, by 7% and 15%,

⁹ Further analysis of the representativeness of the respondents may be found in the Appendix at the end of this paper.

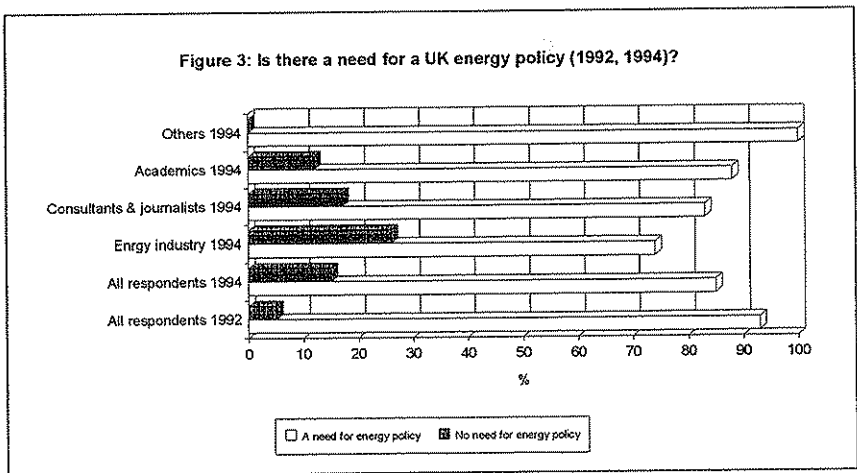
respectively. And between 1992 and 1994 the percentage of 'appropriates' doubled (from 14% to 28%) and of 'effectives' quadrupled (from 6% to 23%).



Among the four groups of 1994 respondents, Figure 2 indicates that the industry group was the only group in which more than half of the respondents thought policy to be appropriate. By contrast, two thirds of the consultant group and more than nine-tenths of the academic group thought policy was inappropriate. In each of the four groups, a minority regarded policy as effective, with the consultant and journalist group lowest (11%) and the industry group highest (39%)

A key question, of course, is whether the respondents saw a need for an energy policy at all. In contrast with the familiar arguments in favour of various forms of energy policy, arguments against include the view that there is no need for a specific energy policy distinct from general industrial policy, and the view that, once appropriately structured, energy markets should operate with an (almost) imperceptible level of government intervention. Figure 3 indicates that a

large majority of respondents, more than four-fifths, said that there was 'a need for a UK energy policy'. Compared with 1992, however, the majority fell by 8 per cent (from 93% to 85%), while the percentage who did not agree that there was such a need tripled (from 5% to 15%). Among the four respondent groups, it is striking that the industry group was the only group in which more than one quarter (26%) replied that there was no need for a policy. The 'others' group were unanimous in seeing a need for policy.



3.2 What Sort of Energy Policy?

What sort of energy policy did the 1994 respondents seek? More than three-quarters (76%) of those 85% of respondents who saw a need for policy agreed that it should consist of 'forecasts, objectives and measures to achieve and monitor them'. The industry group was the only group which said that policy should consist simply of 'government forecasts for the energy sectors' (6%) or 'government forecasts and objectives' (18%). All groups offered a variety of other specifications of energy policy.

The time-frame for energy policy is a significant issue. Respondents who thought there was a need for policy were asked to say in three successive questions whether the time frame should be up to five years, from five to ten years and more than ten years. A clear majority were in favour of policy-making for the medium to long term: nearly four-fifths (78%) agreed that the time-frame for energy policy should be more than 10 years (with equal shares (16%) of the remaining respondents either disagreeing or not responding). Around nine-tenths of the consultant group (94%) and the academic group (87%) shared this view, whereas a much lower two-thirds of the industry group (68%) and the 'other' group (64%) assented to it.¹⁰

In the light of changing views about the role of energy policy, it seemed interesting to ask whether respondents thought energy policy should aim to substitute for markets (which would presumably be seen as otherwise failing in various ways, according to the respondent's criteria of market failure) or to complement them. A very substantial nine-tenths (89%) of 1994 respondents who saw a need for energy policy said that energy policy should complement markets rather than substitute for them, with less than a twentieth (3%) being in favour of substitution. These answers were fairly close to those of 1992.

Aspects of the UK's membership of the European Union continue to excite controversy. The survey asked whether energy policy should be mainly at the level of Europe, the UK or both. A substantial majority of respondents (81%) thought that energy policy should be mainly at the level of both Europe and the UK. There appeared to be a reluctance to assign full powers to Europe: while 14% thought policy should be mainly at the UK level, nobody wished policy to be mainly at the European level.¹¹

¹⁰ Some of the responses suggest that the framing of these three successive questions may have led to uncertainty about whether the answers were intended to be mutually exclusive (they were not).

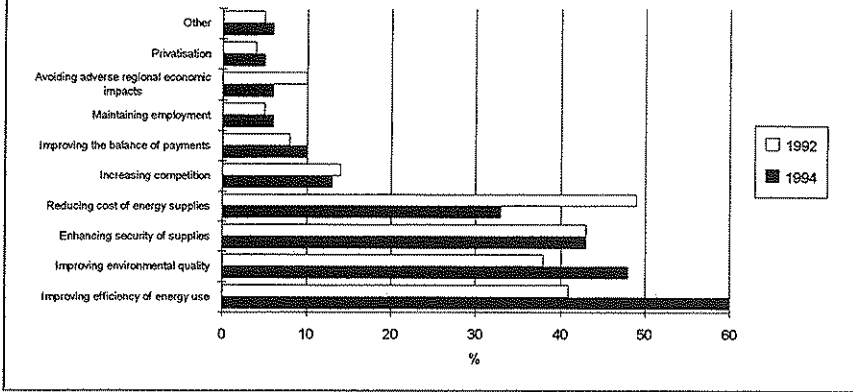
¹¹ It would be inappropriate to try to compare these responses with those of 1992, since the 1992 questionnaire did not fully enumerate the alternatives.

3.3 Policy Objectives

Both the 1992 and the 1994 questionnaires sought to establish what the respondents saw as the most important objectives of an energy policy. They were asked to rank in order of importance a list of nine objectives (with the option to propose and rank additional objectives). Figure 4 shows the resulting scores and rankings.¹² In 1994 the top four objectives were: (1) improving the efficiency of energy use; (2) improving environmental quality; (3) enhancing the security of energy supplies; and (4) reducing the cost of energy supplies. These rankings differed, however, from those of 1992 - although the same four objectives were ranked as the most important, the third and fourth objectives in 1994 had been the first and second in 1992. Compared with 1992, by 1994, energy efficiency and environmental quality grew in relative importance, while concern with reducing energy supply costs appeared to have diminished significantly, down from first to fourth place. Security of supply moved down from second to third place.

¹² The percentages in the figure are the sum of the percentage of respondents citing each objective in the top two ranks of a five-rank order, going from most important to least important.

Figure 4: Ranking the main objectives of an energy policy (1992, 1994)



We can also examine the ranking of objectives by occupational group. The figures are shown in Table 1 below. All groups rank increasing competition as the least important of the five objectives shown. For the energy industry group and the others group, security of supplies is the most important objective. And it is perhaps not surprising that for the mostly supply-oriented energy industry group efficiency of energy use should be ranked a relatively lowly fourth. The journalist and consultant group and the academic group, on the other hand, are not especially focused on security of supplies; for them efficiency of energy use is by far the most important objective - and, as we have seen, it is the objective that easily dominates the overall ranking by all respondents. Environmental quality is ranked second by all but the 'other' group, for whom it is third, and is ranked second overall.

Table 1: Ranking of importance of energy policy objectives by occupational groups (rank and percentage)¹³

Occupational group	Efficiency of energy use		Environmental quality		Security of supplies		Reducing costs of energy supply		Increasing competition	
	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%
Energy industry	4	39	2	50	1	56	3	44	5	22
Journalists & consultants	1	69	2=	38	4	25	2=	38	5	19
Academics	1	80	2	60	3=	20	3=	20	5	0
Others	2	57	3	43	1	71	4	29	5	7
Overall ranking	1	60	2	48	3	43	4	33	5	13

How do these rankings relate to the stated objectives of UK energy policy in 1994? The Government's June 1994 *Energy Report* (Department of Trade and Industry, 1994, paras. 1.4-1.5), said this:

The aim of the government's energy policy is to ensure secure, diverse, and sustainable supplies of energy in forms that people and businesses want, and at competitive prices. The Government firmly believes that this aim will best be achieved by means of competitive energy markets¹⁴ working within a stable framework of law and regulation to protect health, safety and the environment. Government policies also aim to encourage consumers to meet their needs with less energy input, through improved energy efficiency.

The White Paper *The Prospects for Coal* (Department of Trade and Industry, 1993) summarised the key elements thus:

- to encourage competition among producers and choice for consumers, and to establish a legal and regulatory framework to enable markets to work well;

¹³ The percentages in Table 1 are the sum of the percentage of respondents citing each objective in the top two ranks of a five-rank order, going from most important to least important.

¹⁴ *The Prospects for Nuclear Power in the UK* (Department of Trade and Industry and the Scottish Office, 1995) added the word 'open' before 'competitive'.

- to ensure that service is provided to customers in a commercial environment in which customers pay the full cost of the energy resources they consume;
- to ensure that the discipline of the capital markets is applied to state-owned industries by privatising them where possible;
- to monitor and improve the performance of the remaining state-owned industries, while minimising distortion;
- to have regard to the impact of the energy sector on the environment, including taking measures to meet international commitments;
- to promote energy efficiency;
- to safeguard health and safety;
- to promote wider share ownership.

The 1994 *Energy Report* (para. 1.14) also notes that, 'The aims of liberalisation are to secure greater efficiency and reduced cost, while at the same time encouraging cost-reflective pricing'.

The survey respondents' top three objectives, efficiency of energy use, environmental quality and security of supply all figure on the Government's 1994 list of objectives. It seems, however, implausible to suggest that UK energy policy in the years before and including 1994 was dominated by the pursuit of energy efficiency and environmental quality. Even security of supply now seems less important than before - e.g. the 1995 nuclear review rejected arguments for preserving and/or not privatising nuclear on the grounds of security and diversity of supply - is it simply that, while security and diversity are as important as ever, there is now greater confidence that supplies will remain diverse and secure - or is it that security (and diversity) are no longer as important as they once were?

As Figure 4 and Table 1 show, competition and privatisation, both key elements in the government's policy, received relatively low rankings from the survey respondents. It can, of course, be argued that the promotion of

competition and privatisation are not so much objectives of policy but instruments for achieving the more 'standard' objectives of policy - and it may be that the survey respondent's relatively lowly rankings are a reflection of this perception. On the other hand, both politicians and energy professionals frequently pay scant attention to distinguishing between objectives and instruments. However, for recent Conservative governments the liberalisation programme for energy markets has sometimes appeared to be an end in itself, separate from but not necessarily inconsistent with the other more 'standard' policy objectives like security of supply and the efficiency of energy use.

The practical policy outcomes, on which the respondents partly based their views, reflected the explicit and implicit trade-offs between the government's sometimes conflicting objectives, including economic efficiency, the promotion of wider share ownership, the raising of government revenue, as well as other political objectives.¹⁵ Wider share ownership and government revenue, which were not cited by the respondents as important objectives, have had a significant influence on energy privatisations, as a number of commentators have pointed out (Robinson, 1991, 1996; Sykes, 1991). Time constraints also exerted an influence on the privatisations of gas and electricity, as Newbery (1996) has argued.¹⁶

¹⁵ For an example of an analysis of the influence of the interplay of political and economic factors on the decline of the UK coal industry, see Parker (1996).

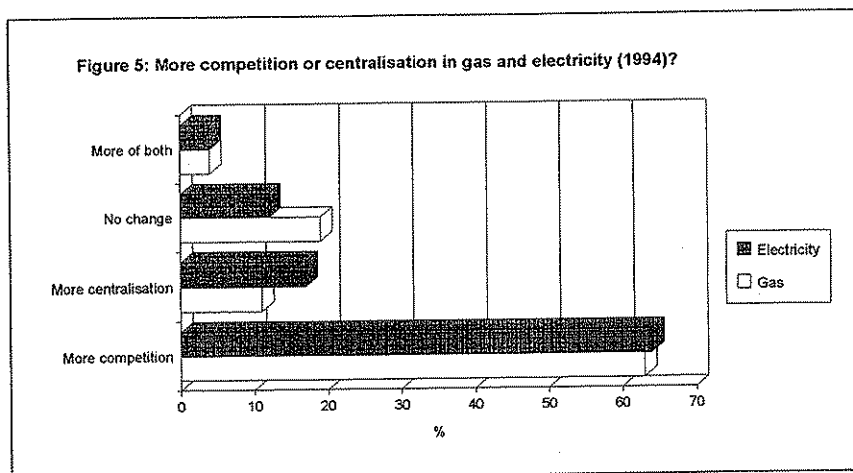
¹⁶ In relation to gas he says that, 'As the time remaining to the next election was short, Lawson agreed to privatisation *en bloc*, provided that Walker [the Energy Secretary] expedited the sale. Not for the last time the finite life of the Government produced a flawed structure in haste for subsequent regulators to wrestle with at leisure' (Newbery, 1996, 3). And in relation to electricity privatisation and the late withdrawal of the CEB's nuclear stations from the sale, Newbery (1996, 7) suggests that, 'The industrial logic for the duopoly of National Power and PowerGen had now disappeared, but there was no time for any further restructuring, given the government's timetable to accommodate a possible election in 1991. As with gas, a shortage of time resulted in a flawed structure and future regulatory problems.'

3.4 Structure and Regulation of the Energy Industries: Gas and Electricity

The privatisation and restructuring of the UK gas and electricity industries has been associated with a variety of controversies surrounding the structure and performance of these two sectors. It has been argued widely that the regulators' tasks were made particularly difficult by the essentially duopolistic and monopolistic forms of the initial restructuring (e.g Newbery 1996, Newbery and Pollitt, 1996, Robinson, 1996).

3.4.1 Competition and centralisation

The respondents were asked whether there should be more competition or more centralisation in the gas and the electricity industries. Figure 5 indicates an interesting similarity in the answers, in that in both electricity and gas a little over three-fifths of respondents wanted more competition, with less than one fifth wanting more centralisation. Among the respondent groups, the industry group were keenest on more competition in gas (78%) and electricity (78%). The consultant and journalist group was least keen on more competition in both gas (50%) and especially in electricity (44%). Several respondents rightly complained that the issue was more complex than could be embraced in a single dichotomous answer. Thus for both gas (19%) and electricity (13%) a number of respondents suggested hybrid answers or wished to be more specific about the parts of the two industries to which their answers referred.



3.4.2 *The Regulation of the Gas and Electricity Industries*

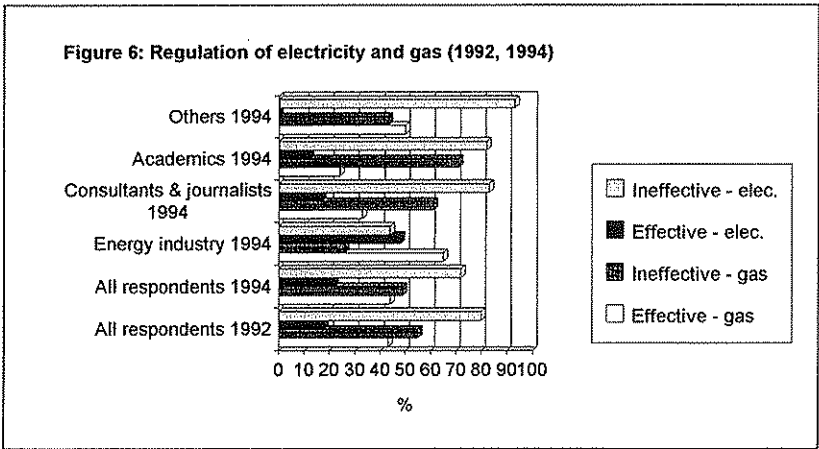
The controversies associated with the restructuring and privatisation of gas and electricity have, not surprisingly, extended in these re-regulated industries not only to their respective regulatory organisations, OFFER and OFGAS, but also to their leading personalities, Stephen Littlechild in electricity, and James McKinnon and then Claire Spottiswoode in gas. In both the 1992 and 1994 questionnaires, respondents were asked whether they thought that the regulation of the gas and electricity industries was effective or ineffective. The results would not necessarily cheer the regulators or their employers, although there were some limited signs of improvement between the two surveys.¹⁷

In both surveys less than half the respondents thought that either industry was effectively regulated. In 1994, as Figure 6 indicates, a little less than half (44%) of all respondents agreed that the regulation of gas was effective, while

¹⁷ To set this in perspective, however, a number of commentators have pointed to the difficulties faced by the regulators from the beginning. For example, Newbery (1996, 28) argues in relation to electricity: 'If the regulator has had a bumpy ride with the press, the problems he has had to face have been largely created by the initial structure at privatisation - too little competition in generation, too low debt:equity finance for the RECs and NGC, too generous price caps, and a set of coal contracts that were due to self-destruct in 3 years.'

less than a quarter (22%) agreed that electricity regulation was effective. Compared with the 1992 figures, however, the figure for effectiveness in gas changed little while the figure for electricity improved by about one fifth (from 18%). Also, between 1992 and 1994 the proportions of those who thought regulation ineffective in each industry declined by about one tenth.

In 1994 there were, moreover, big differences both within and between the four occupational groups about the relative effectiveness of the regulation of the gas and electricity industries, although in all groups a higher proportion agreed that gas regulation was effective than agreed that electricity regulation was effective. The energy industry respondents stand out as the only group in which a clear majority (65%) thought that gas regulation was effective. For electricity, nearly half of this group thought regulation effective, while in all the other three groups more than eight-tenths thought it ineffective (nobody in the 'others' group found electricity regulation effective)



It is instructive to compare opinions about the effectiveness of the regulation of gas and electricity with the respondents' views of the

appropriateness and effectiveness of overall UK energy policy. Table 2 presents the cross-tabulations for 1994. On the whole, there are clear contrasts between the views of those whose opinions of general UK energy policy were that it was appropriate and/or effective (around one-quarter of the respondents), and the views of the nearly two-thirds majorities who think energy policy to be inappropriate and/or ineffective. Not surprisingly, much higher proportions of the 'energy policy appropriates' and the 'energy policy effectives' think that the regulation of the gas and electricity industries is effective, compared with the 'energy policy inappropriates' and 'energy policy ineffectives'. While three-quarters of the 'policy appropriates' and 'policy effectives' think that gas is effectively regulated, no more than half take the same view about electricity. Amongst the 'policy inappropriates' and 'policy ineffectives', the differences are proportionally greater: only a third of each group sees gas regulation to be effective, while no more than one ninth views electricity regulation as effective. Thus in all groups except the 'policy appropriates', a majority sees electricity regulation as ineffective.

Table 2: Cross-tabulations of opinions about the regulation of the gas and electricity industries against views of the appropriateness and effectiveness of UK energy policy in 1994 (percentages)

		% of all respondents	Is the regulation of the gas industry		Is the regulation of the electricity industry		Should the govt. intervene in the decisions of energy regulators?		Should the gas and electricity industries be subject to the same regulator?	
			effective	in-effective	effective	in-effective	yes	no	yes	no
General opinion of	Appropriate	28	75	15	50	40	30	65	25	75
	Effective	24	76	18	41	53	48	51	35	58
UK energy policy	Inappropriate	63	33	62	11	87	53	44	42	53
	Ineffective	60	33	63	11	86	49	51	44	53

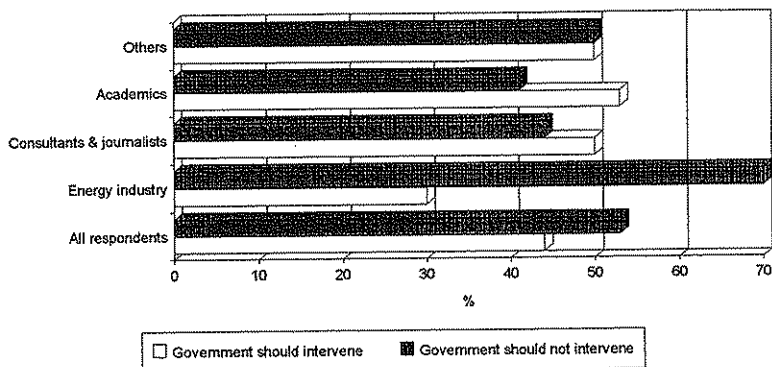
Note: The bottom four rows of the table show, for those who said that UK energy policy was appropriate, effective, inappropriate or ineffective, the percentage responses to the questions listed in the top row. Responses do not always sum to 100.

3.4.3 *Intervention in the Decisions of Energy Regulators*

One way of addressing dissatisfaction with regulation would be to encourage the government to intervene in their decisions. Figure 7 indicates that, whatever the nature of dissatisfaction with regulation, fewer than half (44%) of all survey respondents supported such intervention. Consistent with this, intervention did not receive enthusiastic support from a significant majority of any of the four respondent groups. Given their generally more favourable view of regulatory effectiveness, it is not surprising that the energy industry group was the least enthusiastic about government intervention.

Table 2 shows that the lowest support for government intervention in regulatory decisions is registered by less than one third (30%) of those 28% of respondents who thought UK energy policy to be appropriate, while the highest level of support for intervention is registered by just over half (53%) of the 65% of respondents who thought energy policy to be inappropriate.

Figure 7: Government intervention in the decisions of the regulators (1994)?

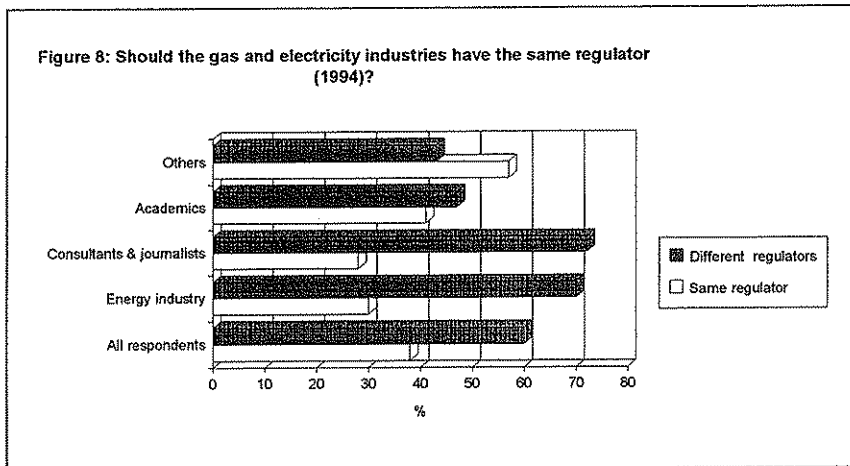


3.4.4 *The Same Regulator for Gas and Electricity?*

One potential change in the structure of regulation of privatised utilities could be in the direction of common regulation, for example by having a single regulator for both gas and electricity (or, in the future, across a wider spectrum of utility activities, including water and telecommunications). Figure 8 shows that the majority of the 1994 respondents did not favour this approach: less than two-fifths (38%) of all respondents supported common regulation. The 'other' group was the only group in which a clear majority supported the idea of common regulation for gas and electricity. In addition, Table 2 shows that only a quarter of 'policy appropriates' and just over one third of 'policy effectives' favour having the same regulator. And even for the 'policy inappropriates' and 'policy ineffectives', only a little over two-fifths favour the same regulator.

It is, of course, possible that a survey carried out today might elicit a different balance of views. Post-1994 merger, take-over and diversification activity in the energy, water and other utilities suggests that increasing numbers of companies are likely to operate as multi-product utilities. In these

circumstances, there may be a greater demand for coordination between regulatory activities and strategies.



3.4.5 Gains and Losses from Gas and Electricity Privatisation

The distribution of gains and losses from energy privatisation has provoked some controversy and much critical comment. Three groups, in particular - consumers, shareholders and energy industry managers - have been the focus of attention; a commonly-expressed view is that customers have gained least and industry senior executives most. Two questions in the survey asked respondents to rank these three groups in terms of which had gained most and least from gas and electricity privatisation. Figures 9 and 10 show that for the respondents as a whole, and for both the gas industry and the electricity industry, industry managers were ranked as the highest gainers by more than half of the respondents, while consumers were ranked as highest gainers in gas by only 11 per cent of respondents and in electricity by five per cent of respondents. The responses of three of the four respondent groups were broadly consistent with the overall responses. The figures show that the energy industry group, however, put

shareholders as the highest ranked gainers from both gas and electricity privatisation (44% ranked them highest for gas, compared with 30% who ranked industry managers as highest; while for electricity 61% ranked shareholders highest, as against 30% for industry managers). The industry group responses are evidently much more evenly distributed across the three 'gainer' groups, compared with the responses of the other three respondent groups. All groups put consumers at the bottom of the list of those who had gained most from each privatisation - the only case in which more than 10% of any respondent group ranked consumers as the highest gainers was the industry group in the case of electricity.

The evident lack of full consensus over the ranking of gas and electricity privatisation gains among a group of relatively well-informed energy professionals, indicates a clear need for further analysis and empirical studies. For electricity, in their recent cost-benefit study of the restructuring and privatisation of the CEGB, Newbery and Pollitt (1966) say the following: '...who benefited from the cost reductions that we found - was it taxpayers and shareholders as Yarrow (1992) suggests, rather than customers? The answer is almost surely yes, given the large increases in profits and the relatively small decline in real final prices, but the full answer will have to await a study of the distribution business.'¹⁸ Their comment raises a further point, which is that the survey questions did not refer to taxpayers as a possible gainer or loser group.¹⁹

¹⁸ In June 1995 Professor Stephen Littlechild, the electricity regulator, was reported to be reviewing the 'RPI-X' electricity price control formula, having 'admitted to MPs that shareholders had fared far better than customers under the industry's regulatory scheme.' He is quoted as saying to the House of Commons Trade and Industry Select Committee that, 'The balance wasn't right the first time. People felt that it wasn't right. Shareholders had done extremely well in the first five years and looked set to carry on doing well' (*Guardian*, 22 June 1995, p. 18).

¹⁹ Newbery and Pollitt (1996) also identify another gainer, Electricite de France: 'A considerable fraction of the gains were transferred out of the country in the form of additional profits to EdF, ...'

Figure 9: Groups thought to have gained most from gas privatisation (1994)

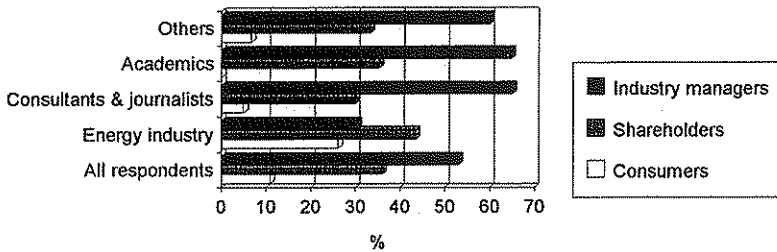
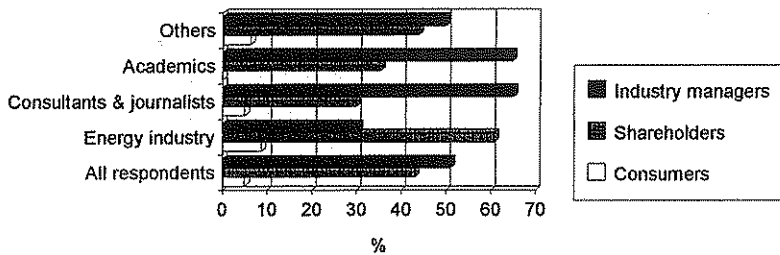


Figure 10: Groups thought to have gained most from electricity privatisation (1994)



3.5 Special Places - Nuclear Power and Coal

3.5.1 *Should Nuclear Power Have a Special Place in UK Energy Policy?*

Certain fuels, such as coal or nuclear power, have had, throughout history, a special place within the UK's energy policy. That is, the government of the time has felt the need to ensure a demand for these fuels, to ensure a supply of them or

to reserve them for special uses. Governments have supported these kinds of special places in circumstances where market mechanisms cannot be relied upon to generate or maintain the desired outcome; this outcome is a means of achieving policy objectives, such as regional employment, security of supply, environmental improvement or other political or military objectives.

At the time of the last survey, in December 1994, energy professionals were awaiting the publication of the government White Paper on the future of nuclear power in the UK, and a number of respondents are likely to have submitted evidence. Amongst the issues raised was whether nuclear power should have a special place in the UK's energy mix. In 1992, as we have seen, the survey contained a question about whether coal (and also any other fuel) should have a special place in UK energy policy. In December 1994 it seemed pertinent to ask whether nuclear power in particular should have a special place. The reasons generally given for this place are related to its commercial viability and its effects on employment, technological development, security of fuel supply and the environment.

Figure 11 shows that overall just less than half (49%) of all respondents thought that nuclear power should have a special place in UK energy policy. Of the four groups, the academics and the others show the clearest majorities against a special place for nuclear power, with the 'others' being the least enthusiastic (just over one-third) supporters of a special place for nuclear.

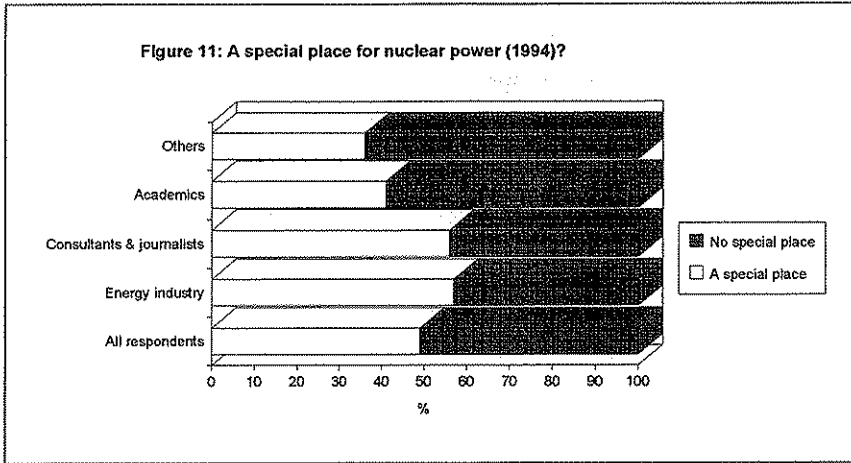


Table 3 also shows that, in terms of attitudes about the effectiveness of overall energy policy in general, least support for a special place came from the 'policy effectives', at 29%, and most from a little over half (53%) of the 'policy inappropriates'. Correspondingly, other tabulations show that of those who wanted a special place for nuclear power, clear majorities thought energy policy to be inappropriate (69%) and ineffective (60%).

Table 3: Cross-tabulations of opinions about a special place for nuclear power against views of the appropriateness and effectiveness of UK energy policy (percentages)

		% of all respondents	Should nuclear power occupy a special place in energy policy?	
			yes	no
General opinion of	Appropriate	28	45	55
	Effective	24	29	71
UK energy policy	Inappropriate	63	53	46
	Ineffective	60	49	51

When asked for arguments about why the generation of electricity by nuclear power should have a special status, respondents gave positive and negative reasons. The most frequently stated favourable argument - mentioned in 24% of all suggestions for giving nuclear power a special place - was the potential contribution to security of supply; this was argued mainly by the energy industry group and the 'others' group. All groups felt that there was an environmental justification (15%); this is based on the expected reduction in carbon dioxide and other air pollutants resulting from generating electricity from nuclear power. A few respondents mentioned employment and technological benefits from protecting a nuclear industry. Overall, 45% of the responses were positive arguments for giving nuclear power a special place.

Negative reasons were mentioned 40% of the time. The greatest concern (15%) appeared to be about the risks of power plant malfunctioning, and hence a need for special safety measures. This was a view shared mostly by industry managers and academics. Groups were evenly represented when respondents highlighted doubts about the commercial viability of nuclear power, particularly about the high costs of dealing with waste and of decommissioning plants (although this on its own is not an argument for protecting nuclear power). Some suggested that it should be protected because of the large past investment in the industry which should not go unused (although economists would argue that this should be treated as a sunk cost rather than a reason for further commitments). Three of the respondents raised concerns about potential environmental problems associated with the industry. About 15% of responses could not be easily classified as positive or negative reasons for giving nuclear power a special status. These responses generally alluded to the unique, complex and long term nature of the nuclear industry.

The overall impression from the 1994 respondents was that those who felt nuclear should be allowed to run as an ordinary energy supply industry were balanced by those who considered it should have a special place within the

government's energy policy. Amongst the latter group two-fifths felt that protecting the existing nuclear industry could achieve certain positive objectives, such as security of supply and environmental improvements. This group amounts to approximately one-fifth of the overall sample, indicating that a minority believe that granting nuclear power special status within the government's energy policy will achieve positive objectives.

Various methods were proposed as a means of granting nuclear power a special status in the government's energy policy. Eighteen percent of respondents cited the need to develop a specific long term energy strategy, although generally the nature of the strategy and the role nuclear power would play in it was not explicitly stated. Twelve per cent suggested that nuclear power should remain in state ownership. Fifteen per cent of respondents felt subsidies, such as the present non-fossil fuel obligation levies, would be an appropriate means of giving nuclear power a special status. Six per cent stated the need to privatise and remove all subsidies - although this appears to taking away its special status and making it compete on the same level as other energy sources.

In the White Paper (Department of Trade and Industry and the Scottish Office, 1995) which examines the prospects for nuclear power in the UK, the Government considered the possible environmental and strategic advantages new power stations could offer. It recognised the role nuclear power could play in stabilising carbon dioxide emissions, in diversifying fuel sources of the electricity supply industry and in developing a specialised industry. Nevertheless, it did not accept that a sufficiently strong case had been made fully to maintain a special place for nuclear power in the electricity supply industry: the continued distortion of UK energy markets was no longer justified.

The government decided to privatise the saleable assets of the nuclear industry, the Advanced Gas-Cooled Reactors and the Sizewell B Pressurised Water Reactor, while retaining in state ownership the much more problematic Magnox reactors. The private-public division of nuclear power ownership will

extend to the management of their liabilities, such as the decommissioning of installations, and storage and disposal of spent fuel and waste. Regulation of the industry structure and health and safety standards, the most frequently-mentioned negative reason for nuclear power to occupy a special place, is planned to remain the same as in pre-privatisation days. It would appear that the government does not see a conflict between the special issues related to nuclear power such as the ones raised by the respondents of this survey and allowing the markets to determine the future of nuclear power in the UK.

3.5.2 A Special Place for Other Fuels?

In December 1994 the debate about nuclear power's position within energy policy was at the fore; it was, therefore, interesting to assess the respondents' views about other fuels at such a time of heightened awareness of a specific energy source. The respondents were asked whether any other energy sources apart from nuclear power should occupy a special place in UK energy policy. Just under half of the respondents (the same as the proportion who wanted a special place for nuclear power) agreed. For these respondents, the most popular choice was for electricity from renewable sources, cited by nearly four-fifths (78%), followed by coal, cited by nearly a third (31%) of respondents. Gas and oil were each cited by about one-sixth of respondents (17%). Another 'source' mentioned by a number of respondents was increased energy efficiency. In the 1992 survey, a striking feature was the popularity of electricity from renewables, which was cited by 68% of those who thought that a fuel other than coal should have a special place. Thus renewables seemed to have risen in popularity between 1992 and 1994. This could, of course, be seen as consistent with the promotion of environmental quality from third to second place in the rank order of objectives for all respondents between 1992 and 1994.

Just under half of industry managers wanted policy to promote other fuels. Amongst them 17% wanted gas and oil promoted, 25% coal and 67% renewable

energy. Two-thirds of the consultants and journalists were in favour of protection of other fuels - one-third for gas and oil, and two-thirds for coal and renewable power. The proportion of the academics (41%) and the 'others' (36%) in favour of a special place for other fuels is exactly the same as for nuclear power. Almost all registered a preference for a special place for electricity from renewable energy sources.

All fuels can assist the government in achieving certain objectives. The decision about whether to give fuels a special place depends on whether the benefits of achieving these objectives outweigh the costs of market intervention. Past UK energy markets have been severely distorted by protection of fuels, in particular coal and nuclear power. The camps appear to be evenly divided between respondents that consider the achievement of their favoured objectives more valuable than the resulting distortions and those that prefer to minimise intervention in the markets for energy.

3.6 The Provision of Information

Information is a key resource that can assist energy suppliers and consumers in anticipating and adjusting to changing market forces, and assist policy-makers in monitoring the achievement of their objectives. In addition, other observers and the electorate have an interest in obtaining access to information about energy markets and their wider impacts.

The privatisation and restructuring of most energy markets in the last ten years has meant that the provision of information is no longer principally from public sector sources and has become more decentralised. In a system where open access to and consistent provision of information were encouraged by the regulators, better quantitative and qualitative data about the market, its regulation and its external effects might become available. Alternatively, privatisation and fragmentation is also likely to create substantial quantities of valuable information about rapidly-changing energy markets. Much of this information

could be potentially commercially sensitive and, therefore, difficult for governments to obtain and publish.

It seemed appropriate, therefore, to ask the respondents whether they thought the quality of data provided by the government since energy privatisation had improved, stayed the same or deteriorated. As Table 4 indicates, the survey suggests that more than two-fifths (43%) of those who answered thought that the quality of data had deteriorated. On the other hand, a total of 44% of respondents believed it had either stayed the same (33%) or it had improved (11%). For the groups, a majority of the energy industry and the 'other' group considered that data quality had stayed the same (39% and 43%) or had improved (17% and 14%); only 35% of these two groups considered that there had been a deterioration. More than half (55%) of the consultants and journalists and almost half (47%) of the academics, however, said that the quality of data available had worsened since privatisation. Thus, on the whole, professional observers of the markets (consultants and journalists and academics) were least satisfied with the quality of data after privatisation - believing that the quality of data had mostly either stayed the same or deteriorated.

Table 4: Views on information quality

	Overall	Energy industry	Consultant & journalist	Academics	Others
Percentage believing that information had improved since privatisation	11%	17%	5%	5%	14%
Percentage believing that information had remained the same since privatisation	33%	39%	16%	35%	43%
Percentage believing that information had deteriorated since privatisation	43%	35%	55%	47%	36%

Apart from issues relating to the quality of currently available data, there is also a potential demand for the provision of additional information. Respondents were asked what additional public information, if any, they wished the government to supply on the energy industries. They were asked to list the two most important types of extra information they would like to be supplied. Nearly two-thirds of respondents requested more information. As Table 5 indicates, just under half the requests for additional information were related to business activity and performance, such as firms' costs of operation, levels of investment market shares and future energy requirements. The rest of the demands were about achieving policy objectives (such as energy reserves, efficiency, control of impacts on the environment, policy initiatives or jobs). Nearly two-thirds of requests for information relating to objectives focused on resource allocation, principally energy efficiency and environmental quality, reflecting the growth in concern for these issues displayed in Figure 4.

The distribution of requests within the energy industry group was similar to the norm. Consultants and journalists were mainly interested in business activities and the prices of energy supplies. Amongst academics, two-fifths of requests related to the activities of the market. The rest were about policy objectives; and seventy percent of these were for information about energy efficiency and environment quality. Within the 'others' group, there was little demand for additional information about market operations; three quarters of the interest was in getting more information about achieving policy objectives, and seventy percent of this interest was focused on energy efficiency and the environment.

The energy industry group and the consultants and journalists group requested information about business activities and performance, as well as prices, presumably to make better decisions. The professional observers of the energy scene appeared to be more interested in information about energy

reserves, efficiency, the environment, jobs and regional variation and on how well the government had achieved its objectives.

Table 5: Views on information needs

	Overall	Energy industry	Consultant & journalist	Academics	Others
Total number of requests	63	20	15	17	13
Percentage of requests for information about the operations of the markets	46%	45%	67%	41%	23%
Percentage of requests for information about the achievement of policy objectives	54%	55%	33%	59%	77%
Percentage of those requests for information about the achievement of policy objectives focusing on efficiency or environmental objectives	32%	36%	40%	70%	70%

4. CONCLUSION

4.1 An Overall Picture of UK Energy Policy

This paper has examined the responses of a set of UK energy professionals to two brief surveys carried out in 1992 and 1994. Despite the complexity of responses, an overall picture does emerge. An overwhelming majority of respondents saw a need for a relatively long term energy policy, at the level of both the UK and Europe. Such a policy is seen as complementing markets rather than substituting for them. On the whole, the respondents seemed to want an approach in which the state structures the league, establishes the rules of the game and appoints referees, in a way that promotes effective participation in the competition.

In 1992, the respondents wanted government to structure and to regulate private energy industries to (in order of priority): promote low-cost energy

supplies; protect security of supply; encourage the efficiency of energy use; and improve environmental quality. Objectives relating to employment, regional economic impacts or the balance of payments were of less importance; competition and privatisation were not listed as major objectives. In 1994, the four main objectives considered important for UK energy policy remained the same, although the order of priority changed. Improving energy efficiency and environmental quality became most preferred, followed by security of supply and the promotion of low-cost energy supplies. The results suggest, moreover, that while the experts' desired objectives for energy policy were broadly similar to those listed by the Government in 1994, the ranking of objectives was in many cases different.

Around two-thirds of the respondents felt that existing policies were inappropriate and ineffective. There were serious doubts about the effectiveness of the regulation of gas and electricity industry, especially of the latter. A majority also replied that gas and electricity privatisation had benefited industry managers and then shareholders, rather than consumers. It was widely felt that competition should be promoted in both industries. A significant proportion of respondents said that government should intervene, in appropriate circumstances, in the decisions of the gas and electricity regulators. Thus the energy professionals did not seem to be convinced that the objectives of energy policy had been satisfactorily achieved, although opinions tended to be somewhat less unfavourable in 1994 than in 1992.

Two other areas were also examined - special places for particular energy sources and the provision of information on the energy industries. Just under half of the 1994 respondents wanted nuclear power to occupy a special place in policy, while two-fifths wanted a special place for electricity from renewable sources. Nearly half the respondents also felt that the quality of information provided by the government on the energy industries had deteriorated since privatisation; a third thought it had remained the same. There were numerous

demands to be supplied with additional information about market activity, the performance of UK energy policy and the degree to which policy objectives (particularly energy efficiency and environmental quality) were being achieved.

The energy professionals whose views are reported here are on the one hand a body of people that is uniquely well-informed about energy and that would not, therefore, be expected to be easily satisfied by a government's energy policy.²⁰ On the other hand, they also belong to special interest groups and will carry the usual sort of 'baggage' that such membership entails. It would, therefore, be interesting to know more about the views of a wider range of respondents. Unfortunately, there seems to be very little data on which to draw: we have not succeeded in locating any other recent detailed surveys of opinions about UK energy policy.

4.2 International Implications of the UK's Experience

The survey results also carry implications that lie beyond the UK. Firstly, there has been considerable interest in the extent to which the UK's recent experience of restructuring, privatisation and re-regulation, and its general approach to energy policy, can serve as a model for others (MacKerron and Pearson, 1996). The survey results suggest that the nature of the restructuring and privatisation matters. In particular, the compromises that a government tends to make between its multiple objectives may create reverberations that continue to sound well after the initial impact of the policies. For example, partly because the initial gas and electricity privatisations did not achieve one of their declared aims - that of liberalising by setting up competitive structures - the survey respondents wanted to see more competition in the UK gas and electricity sectors. UK experience also shows that the distribution of gains and/or losses from privatisation will tend

²⁰ A question that merits further examination is whether energy 'experts' tend to be more or less dissatisfied than 'experts' in other fields of policy.

to be a contentious matter. Consequently, the effectiveness of regulation will tend to come into question.

Secondly, particular fuels tend to be associated with special interests. In some circumstances these special interests may dominate general views about the nature, conduct and objectives of energy policy. Thirdly, the question of whether there is anything in the nature of energy that makes it special compared to other commodities is increasingly being raised. Indeed, 15% of the 1994 respondents thought there was no need for an energy policy at all. Fourthly, the issue of whether regulation should continue to be on a fuel-by-fuel basis or should change to span all energy utilities (or even all utilities including energy, water and telecommunications) under a single regulatory office may come increasingly to the fore, although the majority of 1994 respondents did not yet think it time to change.

4.3 Comments on the Surveys

The 1992 survey, with a questionnaire on two sides of a single A4 sheet of paper, was mounted quickly and was deliberately kept short in order to encourage, as it succeeded in doing, a substantial, rapid response on an important current issue. Principally for comparability, but also because of limited resources and a feeling that a deeper questionnaire would have to be on a significantly larger scale, it was decided to retain the same broad format for the 1994 questionnaire. Seven of the 14 1994 questions, including some of those requesting most detail, had also appeared in the shorter 1992 10-question questionnaire. As a few respondents to both questionnaires rightly commented, such brevity has a cost, in terms of the detail, the sophistication and the specificity of the responses it can elicit. Evidently, more detailed surveys of a larger and possibly more representative sample would be required, to dig more deeply into opinions about UK energy policy and to explore more fully their consistency. Nevertheless, it is hoped that

even this modest exercise has made some contribution to the continuing debate about energy policy in the UK and elsewhere.

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APPENDIX 1: REPRESENTATIVENESS OF THE RESPONDENTS

This appendix considers the extent to which the distribution of responses across respondent groups in 1994 was representative of the distribution of the groups on the mailing list. As column 3 of Table A1 indicates, the distribution was broadly similar, except in the case of the Academic group whose 24% share of responses was significantly above their 17% share in the mailing list.²¹ A number of reasons could be adduced to rationalise the academic group's relatively high willingness to register their views on energy policy through questionnaire responses. Such reasons might include a belief in the value of data collection, even where, in the case of one senior academic, there were very serious reservations about whether the survey's design, particularly in view of its brevity, could capture the full complexity of the issues.

Table A1: Comparisons of distributions of respondents and SEEC mailing list members (percentages)

Occupational Group	1994 Respondents	1994 Mailing List Members	Difference between distributions of 1994 Respondents & Mailing List Members (Col.1-Col.2)	1992 Respondents	Difference between Distributions of 1994 and 1992 Respondents (Col.1-Col.4)
Column No.	1	2	3	4	5
Energy industry	32	35	-3	32	0
Consultants & Journalists (& City)	25	27	-2	31	-6
Academics	24	17	7	25	-1
Others	19	21	-2	12	7
Total per cent	100	100	0	100	0
Total number	72	516	-	118	-

²¹ It was unfortunately not possible retrospectively to perform this detailed comparison for the 1992 responses.

A more detailed breakdown of the occupational groups (into 22 categories) for the 1994 responses revealed that, unlike the 1992 survey, there were no City respondents, although they formed 6% of the mailing list members. Another group that produced a relatively low response was the oil industry whose 11% share of responses was nearly 40% below the expected 18% share. The distribution of respondents between the four groups in 1994 was broadly similar to that of the distribution for 1992, as columns 1 and 4 of Table A1 and Figure 1 indicate. Column 5 shows, however, that while the share of the renamed 'consultants and journalists' group (in the absence of City respondents) fell by 6%, the share of the 'others' group rose by 7%. Thirty-five percent of the 1994 respondents said that they had also responded to the 1992 questionnaire.

APPENDIX 2: THE 1992 UK ENERGY POLICY QUESTIONNAIRE

How to respond: unless otherwise specified, please circle the response of your choice.

1 What is your general opinion of present UK energy policy?

- (a) (1) appropriate (2) inappropriate
- (b) (1) effective (2) ineffective

2 Is there a need for a UK energy policy? (1) Yes (2) No (3) No opinion
[if No or No opinion, go to question 3]

2.1 If Yes, should such a policy consist of:

- (1) government forecasts for the energy sectors
- (2) government forecasts and objectives
- (3) forecasts, objectives and measures to achieve and monitor them
- (4) other (specify briefly)

2.2 What should be the time-frame for energy policy?

- (a) Up to 5 years: (1) Yes (2) No
- (b) 5 to 10 years: (1) Yes (2) No
- (c) More than 10 years: (1) Yes (2) No

2.3 Should energy policy aim to substitute for markets or to complement them?

- (1) Substitute (2) Complement (3) Other (please specify)

2.4 Should energy policy be at the level of: (1) the EC? (2) the UK?

2.5 Rank in order of importance (5 most important, 1 least important) up to five main objectives for an energy policy:

- (a) Enhancing security of energy supplies —
- (b) Reducing the cost of energy supplies —
- (c) Increasing competition —
- (d) Improving environmental quality —
- (e) Improving the efficiency of energy use —
- (f) Privatisation —
- (g) Maintaining employment —
- (h) Avoiding adverse regional economic impacts —
- (i) Improving the balance of payments —
- (j) Other (rank and then specify below) —

3 Should there be more competition or more centralisation in:

- (a) Gas: (1) More competition (2) More centralisation (3) No change
- (b) Electricity (1) More competition (2) More centralisation (3) No change

Please Turn Over

- 4 **Is the present regulation of the gas and electricity industries effective or ineffective?**
- (a) Gas: (1) Effective (2) Ineffective
 (b) Electricity: (1) Effective (2) Ineffective
- 5 **Should the President of the Board of Trade have more powers to intervene in the fuel choice decisions of electricity generators?** (1) Yes (2) No.
- 6 **Should the privatisation of British Coal proceed?** (1) Yes (2) No
- 7 **Should domestic coal occupy a special place in UK energy policy?** (1) Yes (2) No
 [If No, go to question 8]
- 7.1 **If Yes, cite the two most important reasons for this special place:**
 Reason 1:
 Reason 2:
- 7.2 **How should this special place be achieved? Cite the two most effective methods of achievement:**
 Method 1:
 Method 2:
- 8 **Should other energy sources occupy a special place in UK energy policy?** (1) Yes (2) No
 (If No, go to question 9)
- 8.1 **If Yes, which source(s):**
 (1) Gas (2) Oil (3) Nuclear electricity (4) Electricity from renewables (5) Other
 (please specify)
- 9 **What is your occupation?**
 (1) Coal industry (2) Electricity industry (3) Gas industry (4) Oil Industry
 (5) Local government employee (6) National government employee (7) Journalist (8) City
 (9) Independent consultant (10) Academic (11) Other (please specify)
- 10 **Do you have any further comments on the issues raised in this questionnaire? Please write them below, and continue on additional sheets if you wish.**

Thank you very much for participating in this survey!

Please return the questionnaire to: The Secretary (EPQ), SEEC, Dept. of Economics, University of Surrey, Guildford GU2 5XH [fax: 0483-303775]. [ENPOLQ01\11\92]

APPENDIX 3: THE 1994 UK ENERGY POLICY QUESTIONNAIRE

How to respond: unless otherwise specified, please circle the response of your choice

- 1 What is your general opinion of present UK energy policy?
- (a) (1) appropriate (2) inappropriate
(b) (1) effective (2) ineffective
- 2 Is there a need for a UK energy policy? (1) Yes (2) No (3) No opinion
[if No or No opinion, go to question 3]
- 2.1 If Yes, should such a policy consist of:
- (1) government forecasts for the energy sectors (2) government forecasts and objectives
(3) forecasts, objectives and measures to achieve and monitor them (4) other (specify briefly)
- 2.2 What should be the time-frame for energy policy?
- (a) Up to 5 years: (1) Yes (2) No
(b) 5 to 10 years: (1) Yes (2) No
(c) More than 10 years: (1) Yes (2) No
- 2.3 Should energy policy aim to substitute for markets or to complement them?
- (1) Substitute (2) Complement (3) Other (please specify)
- 2.4 Should energy policy be mainly at the level of: (1) the EC? (2) the UK? (3) both EC and UK?
- 2.5 Rank in order of importance (1 most important, 5 least important) up to five main objectives for an energy policy:
- (a) Enhancing security of energy supplies _
(b) Reducing the cost of energy supplies _
(c) Increasing competition _
(d) Improving environmental quality _
(e) Improving the efficiency of energy use..... _
(f) Privatisation..... _
(g) Maintaining employment _
(h) Avoiding adverse regional economic impacts _
(i) Improving the balance of payments _
(j) Other (rank and then specify below)..... _
- 3 Should there be more competition or more centralisation in:
- (a) Gas: (1) More competition (2) More centralisation (3) No change
(b) Electricity (1) More competition (2) More centralisation (3) No change
- 4 Is the present regulation of the gas and electricity industries effective or ineffective?
- (a) Gas: (1) Effective (2) Ineffective
(b) Electricity: (1) Effective (2) Ineffective
- Please Turn Over

5 Which of the following groups have gained most from gas and electricity privatisation? Please rank from 1 (gained most) to 3 (gained least):

- (a) Gas: Consumers___ Shareholders___ Industry Managers___
(b) Electricity: Consumers___ Shareholders___ Industry Managers___

6 Should the government intervene in the decisions of energy regulators? (1) Yes (2) No

7 Should the gas and electricity industries be subject to the same regulator? (1) Yes (2) No

8 Has the quality of data provided by the government on the energy industries since privatisation:

- (1) improved? (2) remained about the same? (3) deteriorated?

9 What additional public information, if any, do you wish the government to supply on the energy industries? Please list the two most important types of extra information you would like to be supplied:

Type 1:

Type 2:

10 Should nuclear power occupy a special place in UK energy policy? (1) Yes (2) No

[If No, go to question 11]

10.1 If Yes, cite the two most important reasons for this special place:

Reason 1:

Reason 2:

10.2 How should this special place be achieved? Cite the two most effective methods of achievement:

Method 1:

Method 2:

11 Should other energy sources occupy a special place in UK energy policy? (1) Yes (2) No

[If No, go to question 12]

11.1 If Yes, which source(s): (1) Gas (2) Oil (3) Coal (4) Electricity from renewables (5) Other (please specify)

12 What is your occupation?

- (1) Coal industry (2) Electricity industry (3) Gas industry (4) Oil Industry
(5) Local government employee (6) National government employee (7) Journalist (8) City
(9) Independent consultant (10) Academic (11) Other (please specify)

13 Did you respond to the first SEEC energy policy questionnaire in Nov. 1992? (1) Yes (2) No

14 Do you have any further comments on the issues raised in this questionnaire? Please write them below, and continue on additional sheets if you wish.

Thank you very much for participating in this survey!

Please return the questionnaire to: The Secretary (EPQ), SEEC, Dept. of Economics, University of Surrey, Guildford GU2 5XH [fax: 01483-303775]. [ENPOLQ02\12\94]

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