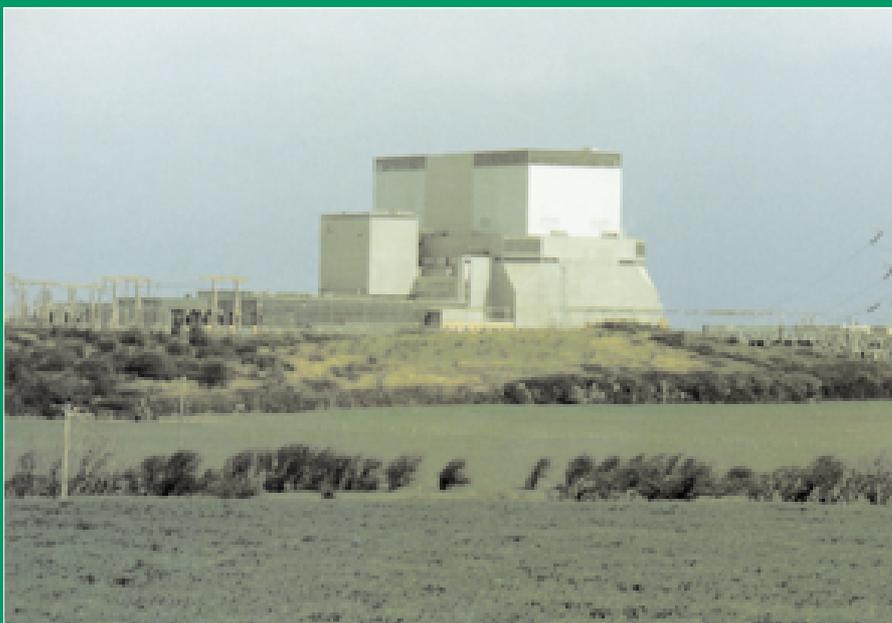


The Sale of British Energy



Contents

Executive summary	1
<hr/>	
Part 1: The Department created British Energy as a robust company, obtaining a high degree of assurance that the company would have the capacity to meet its liabilities	8
The nuclear industry is characterised by large and long-term liabilities	8
The Department sought appropriate assurances on the allocation of assets and liabilities to British Energy and on the company's financial robustness	12
A Nuclear Decommissioning Fund was established to meet long-term site decommissioning costs	16
Future Governments might have to meet some of British Energy's nuclear liabilities	24
Future Government risk is mitigated	30
<hr/>	
Part 2: The Department negotiated British Energy's financial structure with the directors	33
The Department set objectives to achieve high levels of debt and dividends	35
The Department secured British Energy's agreement to levels of debt and dividends at the upper end of achievable outcomes	38
The Department encouraged the Board to present a clear corporate strategy	43
<hr/>	
Part 3: The Department chose the highest available price for the shares, but did not achieve an aftermarket premium and were left with a residual shareholding	44
The Department's conduct of the sale closely followed the pattern of recent Government share sales	45
The Department's allocation and pricing decisions put greatest weight on maximising proceeds	50
A staged sale process might have increased total proceeds	54
The Department kept the costs of sale under control	57
Glossary	61
Chronology	63

Appendices

1: Scope and methodology of the National Audit Office's examination	66
2: Background information on British Energy	69
3: Principal advisers and contractors appointed by the Department	74

Executive summary

1 The Department of Trade and Industry (the Department) privatised British Energy plc on 15 July 1996 through a stock market flotation. The Department aimed to sell all of the shares. In the event they sold 88.5 per cent, raising equity proceeds of £1.26 billion. The Treasury subsequently sold the remaining 11.5 per cent, in a separate transaction, raising a further £198 million.

2 British Energy own the UK's eight most modern nuclear power stations. The older nuclear power stations are owned by Magnox Electric plc, which remains in public ownership. Previously the nuclear power industry was owned by two state-owned companies, Nuclear Electric plc and Scottish Nuclear Limited.

3 Nuclear power generation involves large costs, some of them far into the future, for the removal and disposal of nuclear fuel from the power stations and for the eventual decommissioning of the nuclear site. In 1989 uncertainties about the size and cost of nuclear liabilities led the Government to withdraw the nuclear power industry from the privatisation of the rest of the electricity generating industry.

4 In 1995 the Government reviewed the future of the nuclear power industry drawing the following main conclusions:

- a) the older Magnox power stations had too short a remaining life to generate sufficient revenues to cover their liabilities and could not be privatised;
- b) the newer reactors could generate sufficient revenues, and therefore had a commercial value which could be realised by creating and privatising a new company, British Energy;
- c) the best way both to ensure and demonstrate that enough money would be available at the right time from the private sector to pay for decommissioning nuclear power stations would be to require British Energy to set aside money year by year in advance in an independent trust fund (called the "Nuclear Decommissioning Fund").

5 In selling British Energy, the Department sought simultaneously to convince investors that British Energy was an attractive investment and to ensure that British Energy would take responsibility for all the liabilities associated with their assets. The Department had two main objectives:

- a) to create British Energy as a robust private sector company with long-term viability;
- b) to maximise net proceeds, ensuring the appropriate allocation of liabilities to the private sector and the creation of a robust continuing public sector entity (Magnox Electric).

6 We examined the extent to which the Department achieved these and subsidiary objectives. A full list of the objectives for the sale and the methodology used in this examination is set out in Appendix 1.

7 **The Department created British Energy as a robust company, obtaining a high degree of assurance that British Energy would have the capacity to meet its nuclear liabilities which were allocated to the company in full. Given that these liabilities are large and that many arise in the very long-term, it cannot be excluded that the company might at some future date encounter difficulties in meeting these costs. Future Government exposure to the risks of having to meet such costs is, however, mitigated by formal arrangements which provide protection to the taxpayer: Government retention of Special Shares in British Energy, the establishment of a Nuclear Decommissioning Fund and five-yearly reviews by the Health and Safety Executive's Nuclear Installations Inspectorate of the company's decommissioning strategies.**

8 The Department oversaw the restructuring of the former nuclear businesses, Nuclear Electric plc and Scottish Nuclear Limited, and the split between Magnox Electric and British Energy in accordance with the principle that liabilities should follow their associated assets. The Department sought assurance that British Energy would be commercially robust and able to meet its nuclear liabilities, and that the business of Magnox Electric would not be impaired in the process of creating British Energy. In regard to British Energy, the Department sought detailed assurances:

- a) through independent estimates, on the likely size and timing of British Energy's nuclear liabilities;
- b) by carrying out long term financial modelling of British Energy's power generation business, on the ability of British Energy to generate sufficient revenues during the operating lifetimes of its nuclear power stations to cover its eventual liabilities;

- c) by commissioning actuarial advice on funding arrangements within the Nuclear Decommissioning Fund and legal advice on the independence and powers of the Fund Trustees.

9 The Health and Safety Executive's Nuclear Installations Inspectorate carried out an independent review of the financial standing of British Energy and the robustness of the Nuclear Decommissioning Fund in the course of work done for the purpose of renewing the company's nuclear site licences. This work included an assessment of how the Department assured itself of the company's financial robustness. As a result of their review, the Nuclear Installations Inspectorate renewed British Energy's nuclear site licences.

10 At the time of flotation, British Energy had nuclear liabilities with an estimated present value in the company's accounts of around £3.7 billion, some of which will not fall to be paid until towards the end of the next century and are inherently difficult to evaluate. British Energy's arrangements to finance its nuclear liabilities in the long-term are subject to two further uncertainties:

- **Credit uncertainty:** the risk, common to all private sector companies, that the company might be unable, through insolvency, liquidation or other adverse circumstance, to meet future commitments, such as, in the case of British Energy, the company's contributions to the Nuclear Decommissioning Fund. To the extent that British Energy, or a successor company, fails to meet its future commitments, these fall to future Governments. The Nuclear Decommissioning Fund was established with an initial endowment of £228 million, which was intended to be made sufficient by further contributions by British Energy to be paid annually until 2035, the expected date of closure of British Energy's newest nuclear power station, Sizewell B.
- **Equity uncertainty:** the risk that the Nuclear Decommissioning Fund's investments might not yield the returns assumed. The Trustees of the Fund pursue an investment policy prescribed by Agreement between the Department, British Energy and the Trustees by which the investment policy is reviewed at five yearly intervals. Like most pension funds, the present policy is based on some investment in equity, rather than all in gilt-edged stocks, which promises higher returns but also involves higher risks. This equity risk is, in the first instance, borne by British Energy, but if the company were unable to make its contributions to the Fund, the equity risk would be borne by future Governments.

11 Government exposure to the risks arising from these credit and equity uncertainties is, however, mitigated in several ways which enable influence to be brought on the company's arrangements to finance its nuclear liabilities:

- a) by Government retention of Special Shares in British Energy, which give powers to approve the appointment of the Chairman and over disposals of nuclear plant, and powers to appoint three out of the five Trustees of the Nuclear Decommissioning Fund;
- b) by provision for five yearly reviews by the Trustees of the Nuclear Decommissioning Fund of the anticipated costs of decommissioning and the ability of the Fund to meet those costs. A review may prescribe adjustments to the size of the contributions British Energy must make to the Fund. The first review takes place on 31 October 2001;
- c) through the role of the Nuclear Installations Inspectorate, in carrying out a five yearly review of licensees' decommissioning strategies. This review, conducted in consultation with the Environment Agency and the Scottish Environment Protection Agency, includes a requirement for the operators of nuclear power stations to demonstrate that their financial arrangements are sufficient to meet their decommissioning liabilities.

12 In conducting the sale, the Department first established the financial structure of British Energy in a way which was likely to maximise proceeds from the privatisation. They then conducted an extensive marketing campaign aimed at selling 100 per cent of the shares. The Department set the price of the shares at the highest price available in difficult market conditions. In dealings immediately after the sale the price fell. Following stabilisation of the share price by the Department's global lead manager BZW, the Department were left owning 11.5 per cent of the shares which had been offered.

13 The Department sought to maximise proceeds by seeking high levels of initial debt and first year dividends. After intensive negotiation, the Department agreed with the directors of British Energy the initial levels of debt in the company's opening balance sheet and the level of first year dividends. The agreed financial structure of British Energy:

- a) involved a much higher level of initial debt than originally proposed by the directors, and a first year dividend uncovered by profits, but comfortably covered by the company's strong cash flow;

b) left the Government owning British Energy debt with a face value of £600 million at the date of the company's flotation. Since the sale, British Energy have redeemed part of that debt at a premium by payments to the Government of £268 million. The Government retains the balance of the debt (at a face value of £352 million) in the form of bonds which are marketable and which could either be sold or held to maturity, realising further proceeds of the privatisation.

14 The Department aimed to sell 100 per cent of their shares. BZW, who in addition to their role as global lead manager acted as the Department's financial adviser, advised that a partial sale of 60 per cent would be too small to support a competitive bookbuilding process run by an international banking syndicate. While a 60 per cent sale would have been possible, BZW said that it could not have been done as competitively.

15 In the event, the bookbuilding process showed a level and pattern of demand for the shares which made pricing very difficult. Bookbuilding was adversely affected by events which included a temporary shut-down of two reactors (at two separate nuclear power stations) for safety inspections. The Department priced the shares at 203 pence (fully paid), at which the share offer was 2.4 times subscribed. When dealings in the shares opened on 15 July the price fell immediately. Over the period from 15 July to 14 August, BZW bought shares in the market to stabilise the price. Under the sale arrangements and in accordance with Security and Investment Board rules, BZW could buy up to 90 million shares for this purpose, which could then be used to satisfy allocations to investors. After stabilisation, the Department were left owning 81 million shares, or 11.5 per cent of the shares originally allocated in the Offers.

16 Subsequently, in a separate transaction, the Treasury sold the remaining shares at 244 pence each, realising further gross proceeds of £198 million, which is £33 million more than would have been realised had these shares been sold at the original offer price of 203 pence.

Recommendations

17 Because the arrangements made for British Energy to bear responsibility for meeting the nuclear liabilities associated with the company's power stations cannot remove all residual risk that future Governments may have to meet some of these costs, the Department need to manage that risk effectively. The Trustees of the Nuclear Decommissioning Fund and the Nuclear Installations Inspectorate also have an important role to play.

- a) We recommend that the Department should ascertain and make clear how they intend to keep any residual risk under review and, in particular, that they should consider carefully the case for retaining the power over the disposal of nuclear plant provided by their Special Shares in British Energy beyond 31 March 2006, the earliest date at which the Government can apply for those Shares to be redeemed.**

The Government retains ultimate responsibility under international treaties and agreements regarding atomic energy to ensure that nuclear materials are managed safely. Influence over the disposal of nuclear plant is a valuable power because the nuclear power stations provide the revenue to enable British Energy to fund contributions to the Nuclear Decommissioning Fund.

- b) We recommend that the Trustees of the Nuclear Decommissioning Fund, during the course of each five-yearly review of the adequacy of the Fund's arrangements, make full use of the powers open to them through their professional advisers to review the financial and technical appraisals underlying the funding plans made by British Energy.**

Under the management arrangements agreed for the Fund by the Department and British Energy, the Trustees are charged with ensuring that the investment policy of the Fund is carried out, with the aim of accumulating assets sufficient to cover British Energy's long-term decommissioning costs.

- c) We recommend that in carrying out nuclear site licensing duties involved in their five-yearly reviews of British Energy's decommissioning strategies, the Nuclear Installations Inspectorate should continue its policy of paying close attention to British Energy's arrangements for providing funding to meet its decommissioning liabilities.**

A consideration by the Nuclear Installations Inspectorate of British Energy's financial arrangements for providing funding to meet its decommissioning liabilities has assumed a greater importance because, as a private sector company, British Energy has lost access to any implicit guarantees to which Government-owned companies may be subject.

18 We note that the Department failed to sell 100 per cent of their shares on 15 July 1996, and that the residual shares were subsequently sold in December 1996 at a comfortable premium to the initial issue price. This outcome once again shows that there may be advantages in selling shares in stages, in particular where the share price cannot be set with confidence.

a) We recommend that in future share sales Departments should start with a presumption that shares should be sold on a staged basis, and consider carefully any case there might be against.

Part 1:

The Department created British Energy as a robust company, obtaining a high degree of assurance that the company would have the capacity to meet its liabilities

1.1 In privatising British Energy, the Department were addressing two primary objectives. They were attempting:

- a) to create British Energy as a robust private sector company with long-term viability. The robustness of British Energy was of fundamental importance because the Department sought to ensure that the privatised business would be able to meet its nuclear liabilities, so that those liabilities would not in the future fall to the Government by default; and
- b) to sell a business via flotation for the highest available proceeds (subject to certain subsidiary objectives), a standard objective for a privatisation.

1.2 These objectives required the Department to act in two separate roles. In selling the business, the Department acted as a vendor. In seeking to ensure that arrangements were in place to safeguard the interests of future taxpayers in respect of the company's robustness, the Department acted in a guarantor role.

1.3 This report examines these two roles separately. In this Part of the Report, we examine how well the Department sought to gain assurance that British Energy would be sufficiently robust to meet all its liabilities.

The nuclear industry is characterised by large and long-term liabilities

1.4 Once built, a nuclear power station is relatively cheap to run. The owner of a nuclear station incurs large costs, however, some of them far into the future, for the removal and disposal of nuclear fuel from the power stations and for the eventual decommissioning of the nuclear station and site. The commercial value of a nuclear power station depends on the difference between the revenue it can produce from generating power over its lifetime and the money it needs to set aside to meet the total eventual nuclear liability.

1.5 The nuclear power generating industry is characterised by large and long-term nuclear liabilities. At the time of flotation, British Energy had nuclear liabilities with an estimated present value in the company's accounts of around £3.7 billion, some of which will not fall to be paid until towards the end of the next century.

1.6 Nuclear liabilities arising from power generation fall broadly into two categories:

- the treatment and disposal of spent nuclear fuel (fuel-related liabilities); and
- the decommissioning of the nuclear power stations (decommissioning liabilities).

Nuclear waste, frequently identified as a third category, arises both from the treatment and disposal of fuel and from nuclear site decommissioning.

1.7 In its accounts at 31 March 1996, British Energy's estimated future payments in respect of its nuclear liabilities (including all costs associated with fuel burnt in the past, fuel estimated to be burnt in the future and decommissioning) amounted to £14.0 billion. Using a three per cent discount rate, these total liabilities were valued at £5.6 billion in present value terms to the business. The company's use of a three per cent discount rate is in accordance with draft guidance on estimating the present value of such future long-term costs for financial reporting purposes issued by the Accounting Standards Board. This rate is an estimate of the risk-free real rate of interest applying to debt with long-term maturity. Fuel not yet burnt in reactor cores is not yet an actual charge on the business. So, of the estimated £5.6 billion total liabilities, the company's accounts had accrued £3.7 billion. Figure 1 gives further details.

Fuel-related liabilities arise from nuclear generation

1.8 Spent nuclear fuel remains radioactive and hence potentially hazardous for a long time. The nuclear site licensees retain a liability for the treatment and disposal, or safe storage, of spent fuel. In the UK, most spent fuel is eventually expected to be reprocessed under contracts between the licensed operator and British Nuclear Fuels plc (a Government-owned company). These contracts fix the financial liabilities of reactor operators for fuel reprocessing.

**British Energy's
nuclear liabilities
at 31 March 1996**

Figure 1

	At March 1996 prices	Present value (discounted at 3%)	Accrued at 31 March 1996
	<i>£ billion</i>	<i>£ billion</i>	<i>£ billion</i>
Fuel-related liabilities	9.8	4.9	3.0
Decommissioning liabilities	4.2	0.7	0.7
Total Nuclear Liabilities	14.0	5.6	3.7
Waste management costs included in the figures above:			
a) Fuel-related	1.4	0.3	0.2
b) Decommissioning	0.8	0.1	0.1
Total waste management costs	2.2	0.4	0.3

Source:
Sale prospectus

This Figure shows that fuel-related liabilities account for more than two-thirds of the total nuclear liabilities British Energy expect eventually to meet, and that the immediate financial impact on the company of decommissioning costs is greatly reduced by the effect of discounting.

Decommissioning involves returning the site to a green field state

1.9 After the reactor has reached the end of its useful generating life, the nuclear site licensee retains an obligation to return the site to a green field state. The process of achieving this in the UK involves three stages:

- Stage 1: the removal of remaining fuel from the nuclear reactor (which is very similar to the process of removing spent fuel during normal operation) and early care and maintenance procedures;
- Stage 2: dismantling all active and non-active plant and structures external to the biological shields of the reactors. The remaining structures are then made secure and weatherproof and subject to long-term surveillance procedures;
- Stage 3: dismantling of reactors and clearance of the site, so that it can be returned to alternative use. For most UK nuclear power stations, this stage is currently expected to take place between 70 and 135 years after shutdown of the reactor.

The Department's objective was that all liabilities associated with British Energy's nuclear assets should be borne by the company

1.10 In 1989 uncertainties about the size and cost of nuclear liabilities, and hence about the commercial value of the business, led the then Government to withdraw the nuclear power industry from the privatisation of the rest of the electricity generating industry.

1.11 The Government subsequently reviewed the future of the nuclear power industry. They wished to privatise as much as possible of the industry while ensuring that responsibility for meeting all the nuclear liabilities associated with privatised assets would pass to the privatised industry. The review, published in 1995 as *The Prospects for Nuclear Power in the UK* (Cmd 2860), drew the following main conclusions:

- a) the older Magnox power stations had too short a remaining life to generate sufficient revenues to cover their liabilities and could not be privatised;
- b) the newer reactors could generate sufficient revenues, and therefore had a commercial value which could be realised by creating and privatising a new company, British Energy;
- c) the best way both to ensure and to demonstrate that enough money would be available at the right time from the private sector to pay for the decommissioning of British Energy's power stations would be to require British Energy to set aside money year by year in advance in an independent trust fund (the Nuclear Decommissioning Fund)¹.

¹ British Energy's two nuclear operating subsidiaries, Nuclear Electric Limited and Scottish Nuclear Limited, are the actual nuclear site licensees. Wherever we refer to British Energy as the licence "holder" it should be understood to refer to the two subsidiaries being the licensees. Similarly we refer to British Energy as being responsible for future contributions to the Nuclear Decommissioning Fund. Under the relevant Agreement the licensees are primarily liable for those contributions and their obligations are guaranteed by British Energy.

The Department sought appropriate assurances on the allocation of assets and liabilities to British Energy and on the company's financial robustness

1.12 Through its involvement in a negotiated process between the directors of British Energy and Magnox Electric, the Department were able to obtain a high degree of assurance that both of these companies were restructured in accordance with the sale objectives. The Department also subjected British Energy's estimates of the costs of its nuclear liabilities and future revenue projections to careful scrutiny, drawing the conclusion that British Energy was a robust company which was likely to be able to meet its future liabilities from its own revenues.

1.13 The Health and Safety Executive's Nuclear Installations Inspectorate carried out an independent review of the financial standing of British Energy and the robustness of the Nuclear Decommissioning Fund in the course of work done for the purpose of reviewing the company's nuclear site licences. This work included an assessment of how the Department assured itself of the company's financial robustness. As a result of their review, the Nuclear Installations Inspectorate renewed British Energy's nuclear site licences. The Nuclear Installations Inspectorate considered it necessary to re-license these stations coincident with the creation of British Energy because of the significant changes at corporate and operating levels involved.

The Department oversaw the allocation of assets and liabilities to British Energy

1.14 British Energy was a new company which arose from a restructuring of the two businesses which existed before the sale, Nuclear Electric plc and Scottish Nuclear Limited, into a business to be privatised (British Energy) and a continuing state-owned nuclear generator (Magnox Electric). In this restructuring, the directors of the two new companies were required to negotiate an appropriate split of the assets and liabilities of the previously existing businesses, in accordance with the wishes of their sole shareholder (the Department) and their legal duty to act in the best interests of their respective companies.

1.15 As owner of the businesses, the Department required the directors of British Energy and Magnox Electric to follow two principles in their negotiations:

- a) to match liabilities with associated assets: this meant principally that all the liabilities and assets relating to nuclear power generation by the eight more modern nuclear reactors (seven advanced gas-cooled reactors and one pressurised water reactor) were to be allocated to British Energy, and that all the liabilities and assets relating to nuclear power generation by the older Magnox reactors were to be retained by Magnox Electric. The directors accordingly took that step.
- b) to create robust businesses: by this, the Department meant principally that the business of Magnox Electric should not be operationally weakened in the process of creating a saleable British Energy. The Department also decided that non-nuclear assets should remain in Magnox Electric, unless their allocation to British Energy should demonstrably improve expected privatisation proceeds, and that Magnox Electric should retain all pre-privatisation cash balances (£2,800 million) apart from £228 million allocated to British Energy to endow the Nuclear Decommissioning Fund.

1.16 In pursuit of the achievement of these two principles, the Department used their financial and accountancy advisers to monitor the detailed progress of negotiations between the directors and were prepared to intervene in the event of material differences between them. The need for such intervention was minimal. The directors of both companies assured us that the outcome of negotiations led to the creation of robust businesses in accordance with the Department's objectives. In their annual report and accounts for the year ended 31 March 1997, Magnox Electric subsequently reported a reduction in the company's net balance sheet deficit from £1.3 billion to £0.7 billion which the directors considered clearly indicated the continuing underlying robustness of the company.

The Department sought assurance that British Energy's estimates of the size of its liabilities were prudent and reliable

External advisers confirmed the reasonableness of the estimates

1.17 The Department sought assurance that the company's provisions for its nuclear liabilities were based on reasonable engineering and cost assumptions and were robust. The assurance derived from two sources:

- a) due diligence work undertaken on the accounting for nuclear liabilities by the reporting accountants, Binder Hamlyn and Price Waterhouse, who concluded that the provisions methodologies adopted for the sale prospectus were appropriate and in accordance with best practice;
- b) advice from the Department's own technical advisers, Stone and Webster and Electrowatt International, who jointly concluded that the company's decommissioning cost estimates were reasonable and that estimates of spent fuel reprocessing costs were, if anything, marginally high.

1.18 Stone and Webster and Electrowatt International did, however, note uncertainty over future waste disposal costs, which might in future increase the waste-related elements of estimated fuel and decommissioning liabilities.

British Energy's cost estimates reflect a number of prudent assumptions

1.19 British Energy's estimated decommissioning costs include margins for contingency and risk, amounting to around 20% of the total gross liability, and make no provision for potential improvements in decommissioning technology. The National Audit Office report, *The Cost of Decommissioning Nuclear Facilities* (HC 692 Session 1992-93), previously noted that UK decommissioning cost estimates were conservatively based on present-day technology. The industry consider that recent experience in both the UK and overseas provides some evidence that the actual cost of decommissioning may be lower than original estimates.

The Department sought assurance that British Energy's future revenues were robust

The Department modelled British Energy's cash flows to 2035

1.20 The Department sought assurance on the ability of British Energy to generate sufficient cash to be able to meet its future liabilities by developing, with the assistance of the company's directors, a financial model of British Energy's future revenues to 2035 (the expected date of closure of Sizewell B, the newest of British Energy's power stations) and comparing these revenues with current best estimates of the size and timing of liabilities. This modelling indicated that British Energy would be sufficiently robust in the future to meet its liabilities under a range of prudent assumptions and sensitivities.

1.21 The modelling produced financial projections for British Energy for each year from 1996 to 2035. The modelling incorporated advice on:

- probable future electricity prices from London Economics, an independent consultant employed by the Department;
- the output and operational life of nuclear power stations from Stone and Webster and Electrowatt International; and
- expected dividend and debt payments from the Department's financial advisers BZW.

1.22 The law requires the directors of a company offering shares to the public to take responsibility for the financial information included in the sale prospectus. The directors of British Energy accordingly took such responsibility in this sale. The detailed financial information in the sale prospectus implied that they expect the company both to grow in the private sector and to meet all its liabilities from its own revenues.

The Nuclear Installations Inspectorate accepted British Energy's financial strength

1.23 In the course of their relicensing programme, the Nuclear Installations Inspectorate carefully considered whether British Energy had adequate financial standing to discharge the obligations and liabilities connected with holding nuclear site licences. They considered that the company's financial robustness would assume a greater importance after privatisation, as they could then no longer assume that future Governments would automatically underwrite payment of the company's nuclear liabilities in the event of default by the company.

1.24 The Nuclear Installations Inspectorate reviewed the assurances obtained by the Department from its financial modelling. With the aid of advisers Coopers & Lybrand, they identified a number of pessimistic scenarios on electricity prices, dividend and debt servicing costs, adverse events and contractual obligations and asked the Department to run these scenarios through the financial model. After examining the resulting projections, the Nuclear Installations Inspectorate concluded that the process by which the Department obtained assurances about the cash flows of British Energy provided sufficient evidence that British Energy would be able to discharge the obligations and liabilities associated with a nuclear site licence. British Energy duly received licences for each of its stations on 31 March 1996.

A Nuclear Decommissioning Fund was established to meet long-term site decommissioning costs

1.25 To obtain additional assurance that British Energy would meet its liabilities, the Department followed the recommendations of their 1995 review of the future of the nuclear power industry, *The Prospects for Nuclear Power*, and required British Energy to establish a Nuclear Decommissioning Fund to meet its long-term decommissioning costs.

1.26 The purpose of the Nuclear Decommissioning Fund is to provide a secure source of finance to meet these liabilities. British Energy is the sole contributor to the Fund, which is designed to reach a position of full funding in 2035. Once the power stations have ceased to operate, and British Energy begins to decommission its nuclear sites, the Fund will reimburse British Energy for the costs incurred. Legal liability for decommissioning costs remains with British Energy.

1.27 In examining the actuarial and legal robustness of the Fund, we commissioned advice from Bacon & Woodrow. The Department and British Energy took advice on the actuarial aspects of the Nuclear Decommissioning Fund from Watson Wyatt. The Department commissioned separate legal advice on the design of the Fund and the powers of the independent Trustees. The Department and the directors of British Energy agreed that:

- a) the scope of the Fund should be limited to the longer-term elements of site decommissioning;
- b) the Fund should be financed by a partial endowment of £228 million, representing an estimate of the “historic” liabilities built up before privatisation, and by ongoing annual contributions, representing the remaining costs;
- c) the Fund should invest principally in equities until 2035 (the expected date of closure of British Energy’s last nuclear power station, Sizewell B), and then progressively move to investment in index-linked gilts; and
- d) the Fund should be administered by five independent Trustees, three appointed by the Department and two by British Energy, and that the Fund’s investment performance, the level of British Energy’s contributions and British Energy’s proposed decommissioning strategy should each be subject to five yearly review.

The Fund covers long-term site decommissioning costs but excludes defuelling costs

1.28 The Prospects for Nuclear Power defined the liabilities which should fall within the scope of the Fund as being “long term liabilities, particularly those relating to decommissioning”. The Department and British Energy subsequently agreed to limit the scope of the Fund to longer-term decommissioning liabilities, thereby excluding the costs of defuelling a reactor immediately after it shuts down. Figure 2 shows the timing and cost of the decommissioning liabilities included in the Nuclear Decommissioning Fund.

Decommissioning liabilities in the Nuclear Decommissioning Fund

Figure 2

Decommissioning stage (see paragraph 1.9)	Timing	At March 1996 prices	Present value
		<i>£ million</i>	<i>£ million</i>
Stage 1 (excluding defuelling)	1-5 years after closure	180	90
Stage 2	1-70 years after closure	410	140
Stage 3	at least 70 years after closure (except Sizewell B which is sooner)	3,080	180
Total		3,670	410

Sources: Timing and March 1996 prices: British Energy and Watson Wyatt.

Present values: Bacon & Woodrow using Watson Wyatt assumptions on rates of growth in the Fund (paragraph 1.42).

Note: The total costs of decommissioning differ from costs shown in Figure 1 (£4.2 billion undiscounted and £0.7 billion discounted) because of the exclusion of defuelling costs and the use of a higher discount rate to calculate the present values in this Figure.

This Figure shows that the great bulk of the decommissioning costs covered by the Fund are very long-term costs, and that the immediate financial impact on the Fund of Stage 3 costs is greatly reduced by the effect of discounting.

1.29 The scope of the Fund has been drawn as flexibly as possible to cover nuclear “site” rather than “station” decommissioning. For example, if British Energy decides in future to store or dispose of nuclear waste or spent nuclear fuel on the site of a closed nuclear power station (as opposed to transporting the wastes off-site for storage or disposal at a remote location) any resulting decommissioning costs will be included within the scope of the Fund.

1.30 The Nuclear Installations Inspectorate concluded that the scope of the Fund was appropriate for the purposes of granting nuclear site licences, after obtaining assurances including a clarification from the Department that the contribution rate of the Fund could be reassessed in the event of changes in British Energy's decommissioning strategy (as agreed with the Nuclear Installations Inspectorate).

The Department and British Energy agreed that fuel-related liabilities should be met from operating revenues

1.31 The agreed scope of the Nuclear Decommissioning Fund excludes all fuel-related liabilities (as defined in paragraph 1.6 and costed in Figure 1). The Department and British Energy considered that these costs (like immediate post-closure defuelling costs) were, or would be, largely contracted for under normal commercial agreements and should be met out of operating resources.

1.32 The directors of the company gave an undertaking in the sale prospectus that they would establish appropriate provisioning and financing policies to meet these costs. In further recognition that certain of these costs would become payable after the closure of the company's last (presently existing) nuclear power station, the directors gave an additional undertaking in the sale prospectus to ensure that there would in due course be sufficient investments in place to provide funding to meet these payments as required.

1.33 In contrast to these operational costs, the Department and British Energy considered that the longer-term costs of decommissioning nuclear power stations and returning the site to a green field state were a unique feature of the industry. They were not subject to the immediate prospect of contract and were large and long-term in nature.

The Fund is financed by an endowment and annual contributions by British Energy

The Department rejected alternative financing options

1.34 The Department saw significant drawbacks in two alternative financing options:

a) full endowment at the time of British Energy's flotation

The main advantage of a full endowment would be the high degree of assurance it provided to the taxpayer that funds would be available to meet the liabilities covered by the Fund. Further contributions would only be required from British Energy in the event of unforeseen circumstances, such as worse-than-expected investment returns or escalations in the estimated costs of decommissioning. This approach to financing would, however, have been costly. Bacon & Woodrow estimated it would have required the payment of a lump sum of some £410 million. The Department doubted whether such an amount would have been recouped in additional sale proceeds, felt its payment would not fall within the spirit of the principle that liabilities should follow assets and thought that it may also have been construed as a state aid contrary to European Union law.

b) Nil endowment and higher ongoing contributions by British Energy

A nil endowment would have meant that the Fund was financed entirely by annual contributions in the future by British Energy. This option would have provided a lower degree of assurance to taxpayers but would not have required any initial lump sum payment. It would also have required a much higher continuing level of contributions by British Energy. Bacon & Woodrow estimated that initial annual contributions would have been about £35 million compared with £16 million for the partial endowment option. This would have affected the company's future cash flows and the amount of dividends that could be paid to shareholders, with a consequent negative impact on sale proceeds.(See Figure 3)

**Financing options
for the Nuclear
Decommissioning Fund**

Figure 3

Financing option	Level of assurance to taxpayers	Cost of initial endowment	Impact on British Energy's contributions
Full endowment of some £410 million	High level of assurance	High cost	No contributions required except in the event of unforeseen circumstances
Nil endowment	Low level of assurance	No cost	High level of ongoing contributions

Source:
The National Audit Office

This Figure shows the relative merits of full and nil endowment financing options.

The Department and British Energy agreed that partial endowment with ongoing contributions was the best financing option

1.35 The Department and British Energy agreed that the Fund should be financed by a partial endowment of £228 million, provided from the pre-privatisation cash balances of Nuclear Electric, and ongoing contributions from British Energy, which were initially set at £16 million per annum. This option obtained assurance for the taxpayer while reducing the cost of the initial endowment and ongoing contributions by the company.

1.36 The endowment of £228 million was calculated by Watson Wyatt, joint actuarial adviser to the Department and British Energy, on the basis of what they called the historic decommissioning liability at the time of the sale. The Department and British Energy agreed, before they entered into detailed discussions on British Energy's financial structure (which are described in Part 2 of this Report), that this was the most appropriate basis on which to calculate the endowment.

1.37 The idea behind historic decommissioning liability is that the money to pay for decommissioning is put aside year by year from the revenues of the nuclear generator. In accounting terms the decommissioning liability is created in full as soon as a nuclear reactor is loaded with fuel and operates. The expenses of decommissioning all arise at the end of the reactor's useful life. So the build-up of funds during the life of the reactor bridges the gap between the accounting liability and the eventual payment.

1.38 The agreed financing option, based on partial endowment with ongoing contributions, provides protection to the taxpayer from the risk of potential default by British Energy on payment of their long-term decommissioning liabilities. But it also results in a funding gap. The funding gap is the difference between the value of the Fund's investments at any given moment and the estimated size of relevant decommissioning liabilities. The gap is closed by British Energy's ongoing annual contributions.

The Fund's investment strategy includes investment in equities

1.39 The level of British Energy's ongoing annual contributions to the Fund depends on the Fund's investment strategy. Acting on professional advice, the Department and British Energy chose an investment strategy which involves investment predominantly in equities until 2035 (expected date of closure of

British Energy's newest station, Sizewell B) and a gradual shift to investment in gilt-edged stocks thereafter. Equity investments tend to offer higher annual returns than gilts, but also show a greater volatility, or riskiness, of return.

1.40 There are broadly two alternatives to such an investment strategy:

- a) the Fund could invest only in index-linked gilts. This investment strategy involves the lowest level of risk in terms of volatility of real returns, but would require a higher level of endowment and contribution from British Energy because of lower expected investment returns;
- b) the Fund could invest predominantly in equities throughout its life, with no shift to gilts after 2035. This investment strategy would involve a lower level of endowment and contributions from British Energy but a higher degree of risk and higher expected investment returns. In particular, in the event of poor performance of equity investments after 2035 there would be an increased risk that British Energy would have to make further contributions or that the Government would have to step in.

1.41 The Department and British Energy agreed to the following detailed strategic objectives:

- until 2035, when the last operating station is expected to close, the Fund's investments would be placed 80 per cent in equities (50 per cent in UK equities, 30 per cent in overseas equities), 10 per cent in property and 10 per cent in index-linked gilts;
- over the 40-year period after 2035 the Fund's investments would be progressively transferred to index-linked gilts, so that by 2075 the Fund would be fully invested in gilts.

1.42 Watson Wyatt assumed the following average real, post tax rates of return for the Fund's investments:

- 3.9158 per cent per annum up to the year 2035;
- A phased reduction from 3.9158 per cent to 2.345 per cent over the next 40 years;
- 2.345 per cent per annum after 2075.

1.43 On these assumed rates of return, Watson Wyatt advised that British Energy's initial annual contributions should be set at £16 million. Contributions are to be paid at this level until 2001, when the first of the regular five-yearly reviews of the adequacy of contributions takes place.

1.44 Bacon & Woodrow consider that, for the purposes of budgeting British Energy's annual contributions and in the context of the investment strategy, the assumed rates of return are reasonable and without significant pessimism or optimism. Their view is based principally on their periodic survey of institutional fund managers' expectations.

The Fund is ring-fenced from British Energy and legally robust

1.45 The Fund was constituted by the creation, at the time of the flotation of British Energy, of a public trust under the laws of Scotland. There are five independent Trustees, three appointed by the Secretary of State and two by British Energy. The Trust owns a Scottish company, the Nuclear Generation Decommissioning Fund Limited, which holds the Fund's investments.

1.46 Under an Agreement dated 29 March 1996, between British Energy, their nuclear operating subsidiaries, the Department, the Company and the Trust:

- the initial endowment was paid;
- British Energy's nuclear operating subsidiaries undertook to make ongoing contributions and British Energy guaranteed payments;
- contributions to the Fund were set for the first five years and were thereafter to be subject to five yearly reviews as part of which the cost of decommissioning was to be reassessed and the investment policy revised to the extent necessary to cover that cost;
- the Fund was set a target to accumulate investments with a value of 110 per cent of the relevant decommissioning liabilities. If the value of the assets falls below 90 per cent or exceeds 220 per cent of the liabilities, then contribution rates will be adjusted accordingly;

- if estimates of decommissioning liabilities have fallen between the time of setting the initial endowment and the first or second five yearly reviews, 50 per cent of any resulting surplus will be paid to the Government and 50 per cent paid to British Energy;
- the investment policy for the first five years of the Fund as agreed between the Department and British Energy at the time of flotation was prescribed. Adjustments will fall to be made as part of the five yearly reviews; and
- once British Energy's nuclear power stations have been fully decommissioned, 95 per cent of any remaining assets of the Fund will be distributed to the company, with the remainder falling to the Treasury (4.99 per cent) and the Trustees (0.01 per cent).

1.47 Bacon & Woodrow concluded that the assets of the Nuclear Decommissioning Fund are effectively ring-fenced from those of British Energy and that the Fund's target funding levels, an unusual feature in the arrangements, were, taken together, reasonable from the taxpayers' perspective.

1.48 The Department obtained an opinion from Leading Counsel on 6 October 1995 that the proposed legal structure was robust and that the Fund's investments would be safe from British Energy's creditors in the event of insolvency.

1.49 The Nuclear Installations Inspectorate examined the robustness of the Fund as part of its work on relicensing British Energy's power stations. They concluded that the Fund was sufficiently robust for the purposes of relicensing. They will be undertaking five yearly reviews of British Energy's financial provisions for decommissioning. These will immediately precede the five yearly reviews undertaken by the Trustees of the Nuclear Decommissioning Fund.

The Fund is analogous to a pension fund

1.50 The Fund is in some ways analogous to a pension fund for retired nuclear power stations, as British Energy pointed out to prospective investors before the sale. Like a pension fund, the Fund:

- a) provides a separate, ring-fenced source of investments to meet certain specified future costs;

- b) receives regular contributions from British Energy, as does a pension fund from its sponsoring company; and
- c) provides a secure income stream for the end of power stations' active economic lives in the same way that a pension fund provides income for retired staff.

1.51 There are, however, a number of differences between the operation of a typical pension fund and the Fund (See Figure 4). The main differences are:

- a) Balance of powers: while the trustees of a typical pension fund have direct powers over certain key matters, such as the setting of contribution rates and investment strategy, the Trustees of the Nuclear Decommissioning Fund mainly have powers of review which provide an opportunity to challenge the basis of funding for the company's decommissioning strategies; and
- b) Funding position: a pension fund typically aims to maintain a broad balance between assets and liabilities. The Nuclear Decommissioning Fund is characterised by a funding gap arising from the establishment of the decommissioning liability (paragraph 1.37). Unlike a typical pension fund, the Nuclear Decommissioning Fund only reaches a point of full funding, in 2035, when planned contributions into the Fund have ceased.

Future Governments might have to meet some of British Energy's nuclear liabilities

1.52 The United Kingdom is required under international treaties and agreements regarding atomic energy to ensure that nuclear materials, including radioactive waste, are managed safely. The Government is not obliged to take on the task directly. Any nuclear site operator must comply with the site licence granted by the Nuclear Installations Inspectorate. The licence requires, amongst other things, proper process for the safe management of nuclear materials. But the ultimate responsibility for their safe management, in the event of failure by the operator to carry out the work, remains with the Government. Any disposal of radioactive waste, rather than storage on site, must be authorised by the Environment Agency (in England and Wales) or the Scottish Environment Protection Agency.

Figure 4

Nuclear Decommissioning Fund arrangements compared with those of a typical pension fund

	Typical pension fund	Nuclear Decommissioning Fund
A. Balance of powers between directors and trustees		
Who appoints main advisers?	Trustees alone	Trustees appoint from British Energy nominees
Who sets contributions?	Trustees set the contributions	British Energy propose contribution rate. Fund's actuarial adviser reviews
Who decides on investment strategy?	Trustees directly control investment strategy	Trustees can only change investment strategy by agreement of British Energy
Can Trustees challenge company on operational matters?	Trustees cannot formally challenge company on operational matters	Trustees have an opportunity to review financial and technical appraisals underlying the funding plans for British Energy's decommissioning strategies
B. Funding position		
What happens to liabilities on insolvency of sponsoring company?	On insolvency of sponsoring company, no liabilities accrue to the pension fund other than those earned to date	In event of British Energy's insolvency, while the full decommissioning liabilities must still be met, the Fund's liabilities are limited to its assets
Must fund assets match liabilities?	A pension fund typically aims to maintain a broad balance between assets and liabilities	Liabilities exceed assets until British Energy's contributions fill a funding gap.
What dictates absolute value of, and changes in, liabilities?	Liabilities are related to the rate of earnings and inflation growth	Liabilities are related to British Energy's decommissioning strategy

Source: Bacon & Woodrow

This Figure shows differences between the operations of a typical pension fund and Nuclear Decommissioning Fund arrangements.

1.53 In the context of the privatisation of British Energy, this means that despite the transfer of nuclear liabilities to the private sector and the establishment of the Nuclear Decommissioning Fund, future Governments remain exposed to any residual uncertainty about the capacity of British Energy to meet its nuclear liabilities.

1.54 Many of British Energy's nuclear liabilities are large and arise in the very long term. It is therefore not possible to be certain about the capacity of British Energy to meet all of these costs in the long term. Nuclear liabilities which are within the scope of the Nuclear Decommissioning Fund might fall to the taxpayer if:

- a) the Fund's investments are inadequate to meet the liabilities; and

b) at the same time, British Energy also does not have sufficient revenues or investments to meet these liabilities.

1.55 Liabilities outside the scope of the Fund, such as fuel reprocessing liabilities, could fall to the taxpayer if British Energy does not have sufficient revenues or investments to meet these liabilities; or for fuel reprocessing contracted with Government-owned British Nuclear Fuels plc, if the contracted price proves to be insufficient to cover the actual cost. The directors of British Nuclear Fuels plc have given assurances to Parliament that they entered into such contracts on a sound commercial basis².

Uncertainties arise from the nature of nuclear liabilities

1.56 Two categories of uncertainty arise from the nature of liabilities: future legislation, including changes in environmental and safety regulations, and technological uncertainty. British Energy makes allowance for uncertainties in providing for these liabilities in its accounts.

1.57 No major legislative changes are in prospect. But it is conceivable that regulatory requirements in respect of handling nuclear materials and decommissioning of nuclear sites might change. If in future decommissioning can be safely carried out and is required to take place over a much shorter timescale than the currently-envisaged period of some 70 to 135 years (or 10 to 50 years in the case of Sizewell B), this would impose greater costs on British Energy and might in turn threaten the company's ability to meet its liabilities in full. On the other hand, future legislation or regulatory change might also reduce the obligations imposed on British Energy³.

1.58 Equally technological change might act in ways which either reduce or increase the actual costs of managing nuclear liabilities. At present, the greatest technological uncertainty concerns the management of radioactive waste. Waste management costs, which include Low, Intermediate and High Level Wastes, currently represent about eight per cent of British Energy's total (discounted) liabilities (Figure 1 above).

2 British Nuclear Fuel's Chairman and Chief Executive gave such assurances in regard to questions on contracts signed with Nuclear Electric plc and Scottish Nuclear Limited in evidence to the House of Commons Trade and Industry Committee on 1 November 1995 (2nd Report 1995-96 HC43-1).

3 Government policy, as set out in paragraph 124 of the Review of Radioactive Waste Management Policy (July 1995, Cmd 2919), is that "in general, the process of decommissioning nuclear plants should be undertaken as soon as it is reasonably practicable to do so, taking account of all relevant factors".

1.59 Recent difficulty in establishing a site for a deep repository for the safe disposal of Intermediate Level Wastes (which arise principally from power generation and spent fuel reprocessing) has meant that such wastes are currently stored above ground pending a decision on the longer-term options. With no site yet approved for a deep repository, cost estimates for waste disposal are less precise than the very detailed estimates for fuel reprocessing and nuclear plant decommissioning and dismantling that are at present available based on established technologies. There are similar uncertainties about the costs of disposal of High Level Wastes (which arise from reprocessing spent fuel) and about the costs of storage or disposal of spent fuel not subject to reprocessing.

Uncertainties arise from the methods of financing nuclear liabilities

1.60 British Energy's arrangements for financing its nuclear liabilities are subject to two kinds of uncertainty:

- credit uncertainty (that is, the risk that British Energy may be unable to meet its future liabilities); and
- equity uncertainty (that is, the exposure to volatility in potential returns that arises from investment predominantly in equities in the Nuclear Decommissioning Fund).

1.61 If credit uncertainties arise in isolation, causing an interruption to British Energy's contributions to the Fund, the Fund might still be adequate to meet decommissioning costs in full. If as a result of equity uncertainty the Fund's investments underperform, British Energy might have to pay higher contributions to make up any resulting shortfall between the Fund's assets and liabilities.

Credit uncertainty applies to all private sector companies

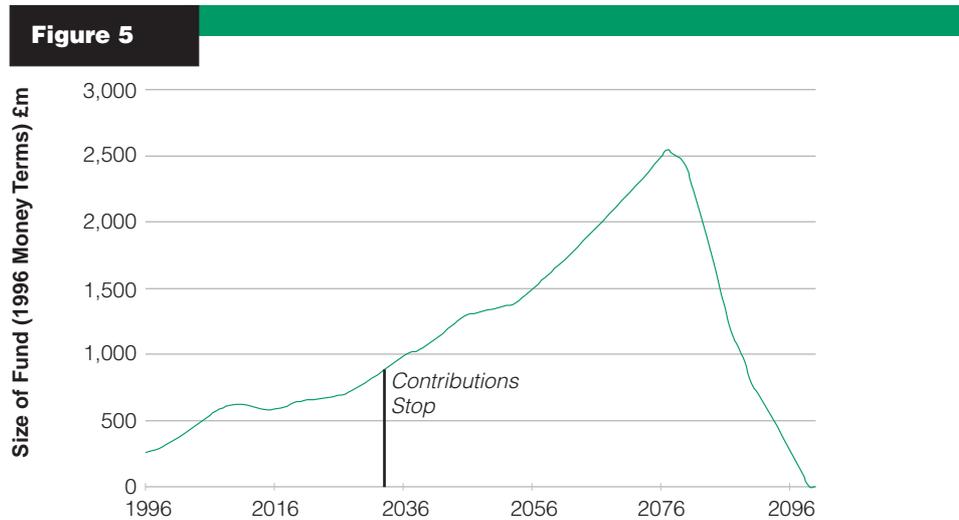
1.62 There is a risk, common to all private sector companies, that British Energy might, for example through adverse trading circumstances, become insolvent and unable to meet the company's liabilities.

1.63 In common with shareholders in any company, British Energy’s shareholders can also at any time decide whether or not to continue to support the company’s continuing operation by way of retained earnings or by subscribing new capital. Shareholders might, for example, decide to liquidate British Energy if revenues fell substantially below contributions required to the Fund. In the event of liquidation, there might be a buyer to take over the nuclear power stations, the outstanding liabilities and the responsibilities of the nuclear site licensees. However, towards the end of the stations’ useful lives, there might be no buyer. In unfavourable circumstances, the impact of liquidation at that point could be exacerbated if it coincided with a substantial fall in the value of investments held by the Nuclear Decommissioning Fund.

Equity uncertainty arises because of the Fund’s investment strategy

1.64 Equity investment promises relatively high returns but may result in losses if equity markets fall. Equity risk arises to the extent that the Nuclear Decommissioning Fund pursues an equity-based investment strategy rather than a strategy based on investment in relatively risk-free gilt-edged stocks. Given its unusual financial profile (Figure 5), particularly its expected very high expenditure towards the end of the next century (shown separately in Figure 6) and dependence on investment returns for the bulk of its growth (Figure 7), the Fund will be exposed to an extensive but progressively decreasing degree of equity risk well into the next century. The Fund is intended to consist entirely of gilts by around 2075.

Financial profile of the Nuclear Decommissioning Fund

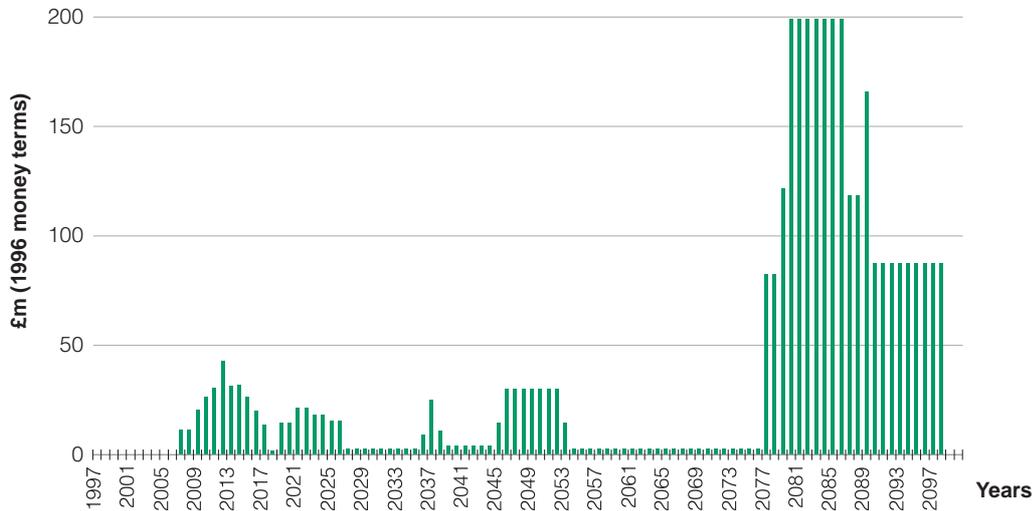


This Figure shows how the size of the Nuclear Decommissioning Fund is expected to vary over its lifetime as a result of the net effects of British Energy’s initial endowment and contributions, returns on the Fund’s investments and reimbursement by the Fund of British Energy’s expenditure on relevant decommissioning costs.

Source: Bacon & Woodrow

Figure 6

Annual decommissioning costs to be reimbursed by the Fund

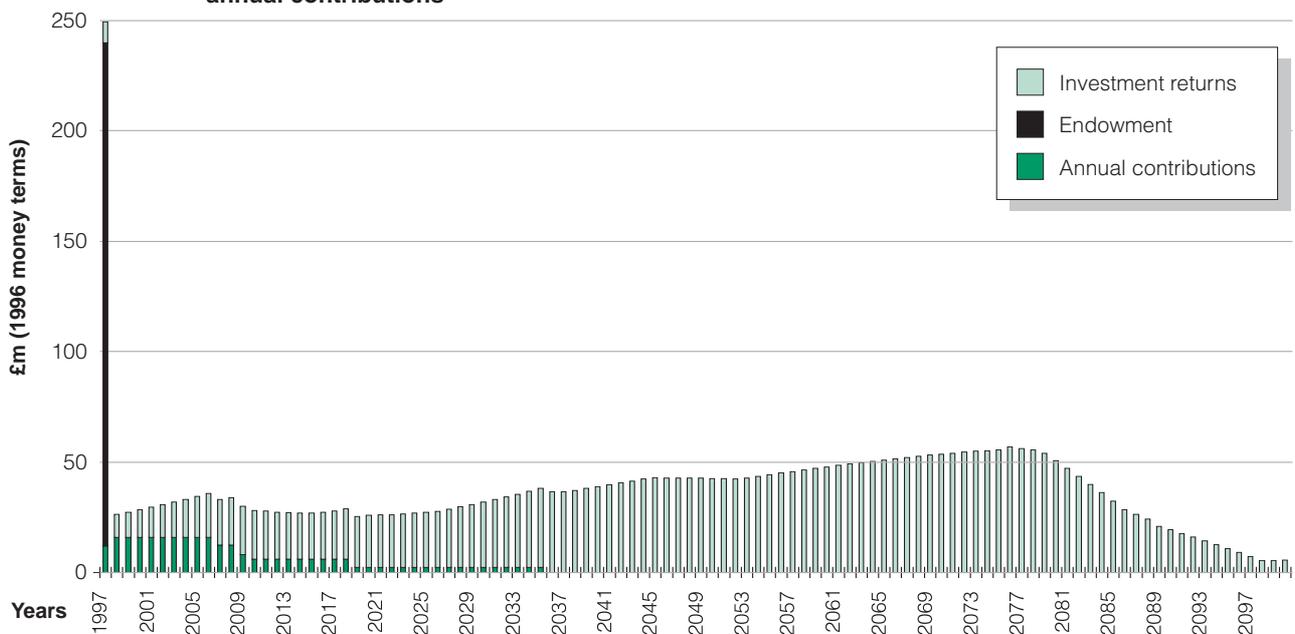


Source: Prepared by the National Audit Office from figures contained in Watson Wyatt's June 1996 report to Parliament on the establishment of the Nuclear Decommissioning Fund.

This Figure shows the expected decommissioning costs to be incurred by British Energy and reimbursed by the Nuclear Decommissioning Fund for each year between 1997 and 2097. The annual costs have included assumptions about future inflation rates but have not been discounted.

Figure 7

The Nuclear Decommissioning Fund: Investment returns, the initial endowment, and annual contributions



Source: Prepared by the National Audit Office based on the figures for the initial endowment and annual contributions included in the Nuclear Decommissioning Agreement and on Watson Wyatt's estimates of rates of investment returns to the Fund's assets.

This Figure shows the income received by the Nuclear Decommissioning Fund over its life, and identifies the source of the income (initial endowment, annual contributions, or investment returns). The Figure demonstrates that the Fund is wholly reliant on investment returns for its income after 2035.

1.65 The pursuit of an equity-based investment strategy is now commonplace in pension funds and insurance companies. Over long periods large equity-based funds have tended to outperform funds which invest only in gilts. Nevertheless, an equity-based investment fund is at greater risk of capital loss than a gilt-based fund. Although equity risk in the Nuclear Decommissioning Fund is, in the first instance, borne by British Energy, through higher (or, after 2035, additional) contributions to make up any losses, the taxpayer shares in this risk to the extent that the company may be unable to pay these contributions. The management of this risk by the Trustees of the Fund may require deferral of decommissioning activity if, after 2035, British Energy no longer exists as a business.

Future Government risk is mitigated

1.66 Government exposure to the credit and equity uncertainties arising from the arrangements to finance British Energy's nuclear liabilities is mitigated in several ways which enable influence to be brought to bear on the company's arrangements to finance these costs in the long-term:

- the Government's retention of Special Shares in British Energy and its powers to appoint three of the five independent Trustees of the Nuclear Decommissioning Fund.
- the role of the Trustees of the Nuclear Decommissioning Fund.
- the regulatory environment (in particular, through the role of the Nuclear Installations Inspectorate).

The Government retains Special Shares in British Energy

1.67 The Government holds a Special Share in British Energy. In addition the Government holds separate Special Shares in British Energy's two operating subsidiaries, Nuclear Electric and Scottish Nuclear.

1.68 The key powers conferred by the Special Shares in respect of mitigating the risk that British Energy's nuclear liabilities might have to be met by future Governments are:

- a veto over the appointment of British Energy's chairman;

- powers to prevent any investor from holding over 15 per cent of British Energy's share capital; and
- a veto over the disposal of any of British Energy's eight nuclear power stations.

The earliest redemption date of the Special Shares is 30 September 2006.

1.69 A particularly important power conferred by the Special Shares is the veto over the disposal of nuclear power stations. By exercise of this power, for example, the Government can prevent the separation of British Energy's newer, more profitable and more commercially attractive nuclear power stations, such as Sizewell B, from its older and less attractive power stations. While the company's directors have expressed their intention to engage in investments, both in the UK and overseas, where they consider this will enhance shareholder value, Sizewell B may be expected still to be an important source for support of the company's contributions to the Fund beyond 2018 (the date when the last of British Energy's other existing nuclear power stations is expected to cease power generation).

The Trustees of the Nuclear Decommissioning Fund will undertake independent five yearly reviews of British Energy's decommissioning costs and funding proposals

1.70 The Trustees cannot set British Energy's contributions or determine the investment strategy of the Nuclear Decommissioning Fund. They are required to administer the investment strategy laid down in the Nuclear Decommissioning Agreement. A review will take place every five years. In addition the Trustees can ask for a review in the case of a material change in circumstances. A funding rate will come out of a review which British Energy will be required to implement (subject to independent appeal procedures). The Trustees have appointed professional advisers who will review financial and technical appraisals underlying the funding plans made by British Energy.

1.71 The Trustees have met the Nuclear Installations Inspectorate, but there is no formal relationship between them. The proximity of the Nuclear Installations Inspectorate's five yearly review of British Energy's decommissioning strategies is likely to help inform the professional advisers of the Trustees. We have noted above that the five yearly reviews present an opportunity to the Trustees of the Nuclear Decommissioning Fund to review the financial and technical appraisals underlying the funding plans made by British Energy. These reviews follow those of the Nuclear Installations Inspectorate.

British Energy operates in a highly regulated business environment

1.72 The nuclear industry in the United Kingdom is highly regulated. The regulators include the Nuclear Installations Inspectorate, the Environment Agencies, and the Office of Electricity Regulation. The roles of each of these regulators is described at Appendix 2. The regulatory activities of the Nuclear Installations Inspectorate and the Environment Agencies provide a source of assurance that British Energy has adequate arrangements in place to manage its nuclear liabilities safely and in accordance with environmental requirements.

1.73 As discussed above, in the course of deciding to issue licences to British Energy, the Nuclear Installations Inspectorate undertook an extensive review of British Energy's ability to operate its stations safely, which included paying close attention to the company's arrangements for funding its nuclear liabilities. Scrutiny of the industry by the Nuclear Installations Inspectorate and the Environment Agencies is ongoing. The Nuclear Installations Inspectorate, acting in consultation with the Environment Agencies, will play an important role every five years in reviewing the reasonableness of British Energy's proposed decommissioning strategies, including the adequacy of their financial provisions

Part 2:

The Department negotiated British Energy's financial structure with the directors

2.1 British Energy was created as part of a reorganisation of the nuclear power generating industry under company law. As a result of the reorganisation the opening balance sheet of British Energy at 31 March 1996 was as shown in Figure 8. This Part of the Report describes how the Department established a new financial structure for British Energy.

British Energy's opening balance sheet

Figure 8

	British Energy's balance sheet as at 31 March 1996
	<i>£ million</i>
Fixed assets	5,348
Current assets	1,191
Unsecured loans owed to the Secretary of State as a result of the reorganisation of the nuclear power generating industry	(1,745)
Term Loan owed to the Secretary of State (repaid prior to flotation)	(96)
Nuclear liabilities	(3,733)
Other creditors and provisions	(568)
NET ASSETS	397
Financed by: SHAREHOLDERS' FUNDS	(397)

Source: Sale prospectus and Accountants' Report

Note: British Energy repaid the £96 million Term Loan on 12 July 1996

2.2 This balance sheet shows that following the reorganisation of the nuclear power generating industry, at 31 March 1996, British Energy owed reorganisation debt of £1,745 million to the Government and had shareholders' funds of just £397 million. No normal commercial company could be financed on such an indebted basis. The Department needed to restructure the balance sheet in a way that would:

- a) be perceived by investors as being reasonable;
- b) be endorsed by the directors of British Energy in the sale prospectus; and

c) maximise sale proceeds.

2.3 In doing so, as explained in more detail below, the Department needed to comply with European Law which, to some extent, restricted the ability of the Department to write off debt. In addition, the Department had some power to decide how much by way of past losses would pass to British Energy as tax losses which could be set against future taxable profits and so reduce British Energy's future tax liabilities. Finally the Department sought the agreement of the directors to announce a dividend policy which would lead to the highest possible proceeds for the sale.

2.4 On 5 June 1996, the Department reached agreement with the directors of British Energy that:

- a) British Energy's debt to the Government at the time of flotation (following repayment of an outstanding term loan of £96 million immediately preceding the sale of the company) would be £600 million;
- b) of the remaining £1,145 million of reorganisation debt on the opening balance sheet, £700 million would be converted into 700 million shares with a face value of £1, and £445 million would be written off. The £445 million debt write-off increased British Energy's distributable reserves from which it could pay dividends;
- c) the directors would forecast a first-year dividend of £96 million in the sale prospectus; and
- d) the Government would cancel all the tax losses which it had legal power to cancel, leaving tax losses of £602 million with British Energy.

2.5 BZW advised that, with this adjusted balance sheet and level of first year dividends, the sale of British Energy could be expected to yield gross proceeds, from the sale of its shares and the eventual redemption or sale of debt owed to the Government, of £1.93 billion to £2.31 billion (Figure 9).

Outcome of financial structure negotiations

Figure 9

	<i>£m</i>
Net dividend forecast by British Energy	96
Gross dividend (including Advanced Corporation Tax at 20%)	120
Proceeds at dividend yields of 7% to 9% (Gross dividend divided by estimated yield required by investors)	1,330-1,710
Proceeds from eventual redemption or sale of debt	600
Total estimated proceeds (equity and debt)	1,930-2,310

This Figure shows the Department's view of gross proceeds likely to be realised by selling British Energy with the financial structure eventually agreed between the Department and the directors of British Energy.

Source: The National Audit Office

2.6 In reaching their agreement with the directors of British Energy, the Department:

- a) overcame the directors' initial reluctance to agree to any initial level of debt owed to the Government and to a dividend which was not fully covered by profits; and
- b) achieved an initial level of debt owed to the Government which, in view of the company's subsequent difficulties in obtaining working capital facilities from commercial lenders, appears to have lain at the upper end of achievable outcomes.

The Department set objectives to achieve high levels of debt and dividends

British Energy should not be relieved of any of its nuclear liabilities

2.7 As discussed in Part 1 of this report, one of the Department's key objectives for this sale was to ensure that liabilities followed assets. In their view this ruled out relieving British Energy of any of its nuclear liabilities. Throughout negotiations with British Energy, the Department resisted arguments that, for the purposes of financial restructuring, the company's nuclear liabilities might be considered as akin to debt.

British Energy's initial level of debt should be maximised

2.8 As one mechanism for maximising proceeds from privatisation of companies by flotation, Departments have generally sought to ensure that the companies have been funded by debt to the maximum achievable and sustainable levels. In privatisations by stock market flotation, departments generally seek to identify, and agree with the directors, the optimal level of debt for the company.

2.9 There are, however, limits to the levels of indebtedness which a company can sustain. At very high levels of debt total sales proceeds may decline. The judgement of the optimum level of debt is complicated because the equity market, the lending market and the company's directors may have different views as to the level of indebtedness at which the risks and costs of servicing debt become unacceptably high. In practice, Departments have to have regard to the maximum amount of debt that a company can bear without endangering the market's perception of its ability to meet interest payments, to repay debt principal when it becomes due, to pay dividends, and to provide for future investment.

2.10 BZW's early advice to the Department in August 1995 was that British Energy could carry a level of debt of at least £1 billion. BZW's advice was based both on a consideration of the company's future prospects, which indicated that British Energy should be able to support debt at this level, and on an examination of the financial structures of comparable privatised UK electricity companies and international electricity companies with nuclear interests, which indicated levels of debt which might be considered acceptable to the market.

2.11 The Department recognised that the level of indebtedness they could achieve would be limited by the views of British Energy's directors on the levels of debt the company could sustain, as well as market constraints. The two major constraints in this sale proved to be the directors' reluctance to agree to a high level of debt and the company's difficulty in obtaining working capital facilities:

- a) the directors had a clear view that British Energy could not sustain a high level of debt. Indeed, they were initially reluctant to agree to any debt owed to the Government at all, arguing that British Energy's nuclear liabilities should be considered as akin to debt for the purposes of financial restructuring.
- b) the level of debt was also limited by the requirement for British Energy to obtain working capital facilities of some £500 million from commercial banks. The initial reaction of commercial banks to British Energy's proposals for such facilities suggested that its total expected indebtedness was close to the maximum levels acceptable to lenders. Had the level of debt owed to the

Government been any higher it seems likely that there would have been an increased risk that British Energy might have been unable to obtain working capital finance or might have had to pay a premium to obtain it.

British Energy should declare the maximum sustainable dividend for its first year in the private sector

2.12 The Department intended that the directors should declare the maximum sustainable dividend for British Energy's first year in the private sector, since most institutional investors were expected to value the shares on the basis of current and likely future dividends. The Department therefore sought to maximise the dividend which the directors would undertake to pay in the sale prospectus.

2.13 The level of this dividend was limited by the concern of the directors not to pay too high a dividend, taking account of their own corporate projections of profitability and cash flow and the accounting policies underlying those projections. In particular, the directors were concerned about:

- a) Dividend cover in 1996/7:** Dividend cover is a standard stock market measure which shows the number of times a company's dividend can be paid out its available profits or cash flow. British Energy's profits were not expected to be large in its first year in the private sector, but its cash flow from generating electricity was expected to be considerable (British Energy's reported profits for 1996-97 were £36 million; net cash inflow from operating activities was £579 million). To secure a large dividend, the Department needed the agreement of the directors to pay a dividend "uncovered" by profits but fully covered by cash flow.
- b) Dividend cover in future years:** The directors were initially reluctant to agree to pay a dividend uncovered by profits but, following negotiations did so, declaring in the sale prospectus that although dividends might remain uncovered by profits for a number of years, in the longer-term they expected only to recommend dividends covered by profits. To some extent this constrained the amount of first year dividend the directors were prepared to declare in the sale prospectus.

The Department secured British Energy's agreement to levels of debt and dividends at the upper end of achievable outcomes

British Energy's initial position was that the company should not bear all its nuclear liabilities

2.14 At the opening of the financial structure negotiations in autumn 1995, the directors of British Energy argued that the company could not be privatised with all its nuclear liabilities. The directors' reasoning was that nuclear liabilities, being long-term and largely fixed future obligations, were very similar to debt. Investors would therefore perceive the company as having debt of over £3 billion and would place a negligible value on the company's shares. The directors proposed that British Energy should be relieved of the financial and legal responsibility for meeting some of its nuclear liabilities in order to secure a successful flotation.

2.15 The Department rejected British Energy's proposals on the grounds that liabilities were not akin to debt, because, unlike debt, the liabilities represented future payments for actual services to be delivered such as fuel reprocessing or site decommissioning, and that the company had sufficiently large potential cash flows to provide an attractive return to shareholders.

Initial financial structure proposals from the Department and British Energy were far apart

2.16 The process of reaching an agreed financial structure was one of proposal and counter-proposal. The first formal proposals in this process were exchanged in mid-February 1996. By this stage, the Department had obtained the agreement of the directors of British Energy that the company could be privatised with all its nuclear liabilities and to the principle of declaring a dividend uncovered by profits. The Department tabled three possible packages of debt and dividends:

- nil debt and £150 million dividend (the "no debt" case);
- £900 million debt and £120 million dividend (the "low debt" case); and
- £1.5 billion debt and £100 million dividend (the "high debt" case).

2.17 The lowest level of potential equity and debt proceeds implied by these proposals (based on views taken about the likely dividend yield required by institutional investors in each case) was £2.6 billion, while the upper end was £3.3 billion.

2.18 The directors made a counter-proposal. This involved nil debt and a dividend of £80 million. It implied proceeds of £1.1 billion to £1.4 billion. The principal sources of disagreement between the two sides included:

- a) the directors' reluctance to accept that the company should bear any level of debt owed to the Government in addition to all of its nuclear liabilities;
- b) the directors' continuing concern to be able to recommend payment of a dividend that would, under reasonable growth assumptions, be fully covered by profits within a reasonable time frame; and
- c) a range of accounting, performance and efficiency issues which led to differing views on the future profitability of the company.

Further discussions brought the two sides closer together

2.19 By early March 1996 the parties had moved closer together. The directors accepted the principle that British Energy could bear debt. However, the directors' proposal of debt of £400 million and a first-year dividend of £100 million still fell some way short of a proposal by the Department at the same time of £900 million in debt and a dividend of £120 million.

2.20 The directors also addressed a concern held by the Department that their projections of future performance were unduly pessimistic, by offering the Department a form of clawback on future profitability should the Department's projections prove to be more accurate than their own.

2.21 The Department asked BZW to consider carefully whether to accept this unusual clawback proposal, which had never been used in a UK Government flotation before, along with other innovative instruments such as traded options (an option to the Government to buy shares at the offer price in the event of a rise in the share price after flotation) and structured debt (debt owed to the Government which would be triggered by the company reaching pre-agreed performance targets after flotation).

2.22 British Energy's profit clawback would have allowed the Government to benefit from any future improvements in profitability unforeseen by the directors during negotiations. On BZW's advice, however, the Department rejected the proposal on the grounds that it would be difficult to negotiate, offered an uncertain future benefit, and could have deterred investors from buying British Energy shares because of its novelty. Such novel instruments might have advantages in certain sales. In the circumstances of this sale, however, the Department saw greater advantage in pursuing its initial debt and dividend objectives.

2.23 Following the rejection of the clawback proposal by the Department, the directors and the Department sought to reach a compromise, with each side making further concessions on debt and the level of the dividend. At this stage, the Department recognised that, to reach agreement with the directors, it would have to reduce the level of debt it was proposing.

2.24 The Department and the directors reached an agreed position on 28 March 1996 (subject to review between the creation of the company on 1 April 1996 and publication of the sale prospectus). The agreed structure comprised debt owed to the Government of £610 million and a dividend of £102 million, implying proceeds of £2.03 billion to £2.43 billion.

Tax losses were cancelled within discretionary limits

2.25 The agreed capital structure subsequently had to be altered in the light of Counsel's opinion, issued on 5 June 1996, in respect of the treatment of certain tax losses in the accounts of British Energy. Tax losses, which can be carried forward and off-set against future earnings, are usually cancelled when companies are privatised by flotation. This is because the Treasury believe that the Exchequer will generally obtain greater benefit from future additional tax payments arising from the cancellation of tax losses than from additional proceeds if the tax losses are passed to the company. In this sale, the Department had been prepared to allow tax losses to pass to British Energy to increase post-tax earnings, thus reducing the company's reliance on cover by cash rather than profits on dividends.

2.26 It only emerged at a late stage that if the Department failed to cancel certain tax losses built up by Scottish Nuclear since 1989, this would be construed as a state aid by the European Commission. Under the 1989 Electricity Act, the Department had discretionary power to cancel £1.37 billion of Scottish Nuclear's tax losses, but could not cancel a further £602 million. Following Counsel's opinion on potential state aid, the Department cancelled all of the £1.37 billion

discretionary losses. BZW estimated that this would result in increased corporation tax payments in future years, worth over £50 million in present value terms.

2.27 British Energy, however, argued that they had based their projections of profit after tax and sustainable dividends on the assumption that Scottish Nuclear’s tax losses would be available in full to the company and called for an adjustment to be made in the level of agreed debt and dividends. With the deadline for issuing the Pathfinder prospectus on 10 June approaching, the Department agreed to reduce both the first year dividend and the initial level of debt. The final agreement comprised debt of £600 million and a dividend of £96 million, implying proceeds of £1.93 billion to £2.31 billion.

The availability of working capital facilities indicates that the level of debt was at the upper end of achievable outcomes

2.28 The company’s requirement to obtain working capital facilities acted as a constraint on the level of debt which the company could bear. In the event, British Energy received a high credit rating and obtained the required £500 million facility. However, the syndication of the facility among commercial banks was not straightforward because some banks were reluctant to provide working capital facilities to the company. BZW told us that, with the benefit of hindsight, they had concluded that the problems encountered in the syndication of working capital facilities indicate that levels of debt owed to the Government could not have been more than £700 million without affecting the company’s ability to obtain facilities from commercial banks.

The Department complied with European Community guidelines

2.29 In considering whether a privatisation takes place without state aid, the European Commission competition authorities have endorsed a legal principle to the effect that where a state takes action such as a private investor would take before selling a company, that action does not constitute state aid. In respect of privatisations by flotation the Commission has formulated an administrative rule to guide their decisions:

“When the privatisation is effected by the sale of shares on the stock exchange, it is generally assumed to be on market conditions and not to involve aid. Before flotation, debt may be written off or reduced without

giving rise to a presumption of aid as long as the proceeds of the flotation exceed the reduction in debt (paragraph 403, EC Commission's 23rd Report 1993)"

2.30 Prior to the sale, the Department had to reorganise the UK nuclear power industry to separate the Magnox power stations which were to remain in the public sector from the eight more modern nuclear power stations (seven advanced gas-cooled reactors and one pressurised water reactor) to be privatised. This reorganisation took place, under company law, and resulted in the creation of interest-free reorganisation debt owed to the Department, of £1.745 billion in British Energy's opening balance sheet at 31 March 1996. The reorganisation debt represented the Department's interest in the assets transferred to British Energy from within the nuclear power industry (which the Department wholly owned). It did not represent cash paid to British Energy or past loans from the Government to the nuclear power industry.

2.31 Following advice by BZW that this step would increase proceeds, the Government converted £600 million of the reorganisation debt into interest bearing debt (which comprised £440 million in three company bonds and £160 million in two short term debentures), waived £445 million of the debt and converted the remaining £700 million into £1 ordinary shares which it sold in the flotation.

2.32 The Department provided full information about and discussed these steps with the European Commission. As a result of these discussions, the Department understood that the Commission held the view that relevant debt write-off in line with Commission policy would be no more than £1.2 billion. As the Department were confident that gross equity proceeds would exceed that amount, they considered that the sale was unlikely to involve a state aid.

2.33 The Department's view that the sale involved no state aid was supported by Counsel's opinion obtained on 6 June 1996. Consistent with their policy, the Commission have made no announcement about state aid in the sale.

The Department encouraged the Board to present a clear corporate strategy

2.34 British Energy's corporate strategy and approach to corporate governance was largely a matter for the Board. But the Department also had an interest, in that:

- a) investors' perceptions of a company's corporate strategy would affect the price investors were prepared to pay for British Energy shares;
- b) a positive directors' statement on British Energy's prospects and dividend policy in the sale prospectus would help the sale; and
- c) one of the Department's subsidiary objectives for this sale was to comply with the Cadbury and Greenbury reports on corporate governance and also to ensure British Energy's compliance.

2.35 The Department encouraged the Board to clarify certain elements of British Energy's corporate strategy which they considered would be particularly critical for institutional investors. The prospectus accordingly stated that the directors did not expect any decision to proceed with a new nuclear station for a number of years and that the directors would sanction investment only where they considered it would enhance shareholder value.

2.36 The prospectus also said that, in the absence of unforeseen circumstances and subject to (certain stated) assumptions they had the objective of pursuing a progressive dividend policy (that is, a policy of declaring real terms increases in dividends in successive years).

2.37 The Department complied with the requirements of the Cadbury and Greenbury reports and ensured that British Energy did so. The Department were involved in the drafting of the companies' Articles of Association and approved the membership and terms of reference of British Energy's Board Committees. The directors declared in the prospectus that they intended to comply with the Code of Best Practice recommended by the Cadbury Committee on the Financial aspects of Corporate Governance, and to comply with the recommendations on directors' remuneration contained within the Greenbury Report.

Part 3:

The Department chose the highest available price for the shares, but did not achieve an aftermarket premium and were left with a residual shareholding

3.1 The Department's main aim in selling British Energy's shares was to maximise net proceeds. The Department also set subsidiary objectives in line with usual practice in Government share sales:

- to widen and deepen share ownership; and
- to achieve a modest premium over the offer price in the period immediately following the start of dealings on the Stock Exchange and, over time, performance broadly in line with relevant stock market trends, so that investors and the market consider the offer to have been a success.

This Part of the Report examines how the Department sought to achieve these objectives.

3.2 The Department followed a well-established pattern of UK Government flotations, offering shares separately in an International Offer to international investment institutions, and in a UK Public Offer to private individuals. The Department retained an option to allocate additional shares to either or both of these Offers, depending on the relative strength of demand between them. This enabled the Department to add to price tension in the International Offer, by creating a prospect of potentially scarce supply for international institutions, as well as offering an opportunity to increase private share ownership.

3.3 As before in recent UK Government sales, the Department planned to set the price of the shares on the basis of a competitive bookbuilding process, in which institutional investors were asked to bid firm prices for shares. Following a marketing campaign and bookbuilding, the Department set the price of the shares at 203 pence (105 pence partly paid). The strike price set, however, proved unsustainable in the immediate aftermarket. When dealings in the shares opened on 15 July the price fell immediately.

3.4 Over the period from 15 July to 14 August, BZW bought shares in the market to stabilise the price. Under the sale arrangements and in accordance with Securities and Investment Board rules, BZW could buy up to 90 million shares for this purpose, which could then be used to satisfy allocations to institutional investors. After this stabilisation, the Department were left owning a balance of 81 million shares, or 11.5% of its original holding.

3.5 In selling 88.5 per cent of their shares, the Department raised gross equity proceeds of £1.26 billion. Subsequently, in a separate transaction, the Treasury sold the Government's remaining shares at 244 pence each, realising further gross proceeds of £198 million, which is £33 million more than would have been realised had these shares been sold at the original offer price at 203 pence.

3.6 The Department considered but rejected the idea of selling British Energy in stages. Such a staged sale might have led to higher total proceeds.

3.7 Proceeds foregone by way of discounts and other incentives to attract interest in the Public Offer totalled £34 million. The operational costs of the sale totalled £32 million.

The Department's conduct of the sale closely followed the pattern of recent Government share sales

The structure of the share sale was based on an International Offer and a UK Public Offer

3.8 The Department offered to sell a minimum of 610 million shares, with the option to over-allot up to a further 90 million shares (see paragraphs 3.12-3.15 below). This has been a standard approach in recent UK Government share sales. The main elements of the offer structure adopted in the sale included:

- **International Offer:** not less than 275 million shares were to be sold to international investment institutions, using a bookbuilding technique first adopted in UK privatisations in 1991;
- **UK Public Offer:** at least 183 million of the shares sold under the Offers were to be sold, at a discounted price, to individual investors, with the aim both to maximise overall demand for the shares and to deepen share ownership by small investors;

- **Shares to be allocated between the International and UK Public Offers:** further flexibility was retained by the Department to allocate up to a further 152 million shares between the International and UK Public Offers depending on the relative strengths of demand (and subject to the offer of certain free and matching shares to employees of British Energy - see below).
- **Retail tender:** individuals had an opportunity to secure larger holdings than were available in the UK Public Offer, by taking part in a retail tender (as part of the International Offer) on the same terms available to investment institutions;
- **Employees and pensioners:** the Department offered up to 3.5 million shares on certain free and matching terms to the employees of British Energy (the company's employees and its pensioners could also apply for shares up to a certain limit on a discount and priority basis in the UK Public Offer); and
- **Instalment payment terms:** apart from part of the employee offer, all investors paid for shares in two instalments, the first payable on flotation (set on 10 June at 105 pence) and the second payable in October 1997 (set at 98 pence as a result of the bookbuilding process).

The International Offer was run by a syndicate of banks using bookbuilding

3.9 The Department selected a team of eight international banks, known as a syndicate, to market British Energy to institutional investors and to encourage these institutions to make bids for shares. In the run-up to flotation the syndicate ran a formal bookbuilding process in which institutional investors were invited to make bids for shares within a range of prices (180 pence to 280 pence). The resulting demand information was used to guide price setting and the allocation of shares to institutions.

3.10 BZW, appointed global co-ordinator, led the syndicate. To maximise competition within the syndicate, each syndicate member could approach investment institutions in any part of the world. The composition of the syndicate, however, represented a balance between banks with different geographic areas of expertise. The purpose of this regional balance was to uncover pockets of demand

from smaller investment institutions in each bank's local area of expertise and thereby create pressure on the larger, more globally-focused institutions to increase the price of their bids for British Energy shares.

Share allocations to institutions followed a process of rating the quality of institutional bids

3.11 In line with past Government share sales, the Department established a scheme for the allocation of shares to institutions before the process of bookbuilding started. As in the past, this was based on the perceived quality of bids submitted by institutions. Each bid was assigned a score by BZW and other members of the banking syndicate, with a higher-graded bid receiving a greater allocation of shares than a lower graded bid. The criteria for assessing the quality of bids, which were pre-announced in the sale prospectus, included propensity to hold shares for the long-term, timeliness and firmness of bids and price leadership.

The International Offer included an over-allotment option

3.12 As in past share sales, the offer structure also included a possibility of over-allotment and stabilisation trading. The Offers, as described in the prospectus, comprised a minimum of 610 million shares with a possibility of "over-allotment" of up to 90 million further shares.

3.13 BZW, as global co-ordinator, had an option to purchase up to 90 million shares from the Department in addition to the 610 million shares which were the subject of the minimum Offers. That option could be exercised to settle shares over-allotted to institutions, in the event of strong demand for the shares in the aftermarket. In the event of a volatile or falling share price in the aftermarket, BZW could satisfy the over-allocations either partially or wholly with shares acquired through stabilisation trading in the market.

3.14 Stabilisation trading can only be carried out under rules set by the Securities and Investments Board and only at or below the issue price. One possible outcome of stabilisation trading is that the vendor may be left with an unplanned residual holding as in this sale.

3.15 The possibility of stabilisation trading may be attractive to investors, offering the benefits of a stabilised after-market. It also provides a degree of flexibility for the eventual size of the sale of shares, to adjust within limits, to the market conditions actually encountered in the aftermarket.

The UK Public Offer was conducted mainly through Share Shops

3.16 The Department appointed 112 retail share brokers, known as Share Shops, to conduct the main selling effort in the Public Offer. Share Shops marketed the shares available in the Public Offer directly to private investors on a fully competitive basis. Share Shops had been used in this way in recent Government initial and secondary public offerings, including the sale of Railtrack. Private investors in the Public Offer could only obtain the second instalment discount on the price of the shares and any bonus shares if they bought shares through Share Shops. The Government hoped that familiarity with dealing in shares through Share Shops would continue to encourage individuals to consider more generally the possible advantages of more widespread investment in shares.

The Department developed appropriate marketing strategies

3.17 In any sale, selecting the most appropriate offer structure only goes some of the way to maximising demand. We examined how the Department developed marketing strategies to attract both institutional and private investors.

Marketing to institutional investors focused on educating the market about the unusual features of British Energy

3.18 In marketing the shares to institutions, the Department and its advisers were particularly concerned about the unfamiliarity of investors with the company and the low level of profits the company was expected to report in its early years in the private sector.

3.19 They were concerned that investors, particularly in the UK, might be unsure how to value the shares. British Energy would be, once floated, the only quoted nuclear generator in the UK, and the only all-nuclear generator anywhere in the world. In addition, it would be characterised by some unusually long-term liabilities compared to other quoted electricity generators.

3.20 The Department sought to address investors' potential unfamiliarity by undertaking a substantial market education programme. This programme involved a number of presentations by British Energy's directors, a programme of visits to nuclear power stations for City research analysts, and a series of one-on-one meetings between management and key investment institutions.

3.21 In view of the company's low historic and expected profits the Department and its advisers emphasised British Energy's ability to generate exceptionally strong cash flow (Figure 10). This helped investors to become comfortable with the view that British Energy could declare a dividend uncovered by profits (but covered by cash) in the sale prospectus. All amounts in Figure 10 are estimates derived from the sale prospectus provided on a "pro-forma" basis, as British Energy did not exist as a separate business in these years. The amounts have been adjusted to exclude the effects of the Nuclear Premium, payments to the nuclear generating business which ceased following the privatisation of the company, and exceptional items. We have also adjusted the cash flows to remove the effect of certain arrears to British Nuclear Fuels plc, in the years to March 1995 and 1996 respectively, which had been held back in the years prior to the signing of new, fixed price fuel reprocessing contracts in March 1995. In place of these payments, we have included the expected payments to British Nuclear Fuels plc in the years 1998-2001.

Figure 10**British Energy: adjusted cash flow and profits**

Year to 31 March:	1992 £m	1993 £m	1994 £m	1995 £m	1996 £m
Loss before tax (excluding nuclear premium and exceptional items)	(564)	(230)	(68)	(110)	(77)
Net cash flow generated from operating activities (excluding nuclear premium, exceptional items and payments to construct Sizewell B)	(189)	84	277	(336)	(116)
Add back actual payments (including payments in arrears) to British Nuclear Fuels on fuel-related contracts	212	242	264	801	642
Deduct "underlying" pattern of payments to British Nuclear Fuels	(292)	(292)	(292)	(292)	(292)
Adjusted cash flow	(269)	34	249	173	234
Excess of adjusted cash flow over profit/(loss)	295	264	317	283	311

Source: Sale prospectus.

This Figure shows that British Energy's underlying business generally generated cash flow in excess of profits.

Marketing to the UK public focused on experienced investors

3.22 The UK Government has frequently sought when floating companies to sell some shares to the UK public. There are two reasons for this objective:

- the Government has seen flotations as a tool for deepening and widening share ownership among the UK public; and
- the Government has sought to maximise demand from the UK public so that institutions come under pressure to increase their bids.

3.23 The Department pursued both these objectives in this sale and decided that it would best serve this purpose by seeking to sell British Energy shares to UK individuals who already had experience of share ownership. This sale therefore concentrated on deepening share ownership (increasing the number of shares held by individuals who already own shares) rather than widening share ownership (selling shares to individuals who hold no shares). This emphasis on deepening share ownership continued a trend which began with the Government's second sale of shares in National Power and PowerGen in 1995. The Department also acted in this case on the results of specific market research.

3.24 The Department conducted a marketing campaign to attract existing private investors, into which it drew the Share Shops in an attempt to co-ordinate the main marketing messages issued by them. In its marketing, the Department focused principally on presenting the British Energy flotation as an opportunity to participate in another Government share sale. It sought to raise awareness that the sale was taking place and to stress that it was a Government sale. The Department sought to reach its target audience principally through a direct mailshot to 5 million known holders of shares and advertisements in the press, particularly in the financial pages of broadsheet newspapers, rather than on television or radio.

The Department's allocation and pricing decisions put greatest weight on maximising proceeds

3.25 In setting a price at the end of bookbuilding, departments need to strike a balance between the competing objectives to maximise proceeds and to secure a modest aftermarket premium. Maximising proceeds implies setting the highest possible price, whereas achieving a modest aftermarket premium argues for a slightly lower price. Seeking to maximise proceeds, without achieving a modest aftermarket premium, may encourage investors to discount their bids to reduce their exposure to a possible fall in the price in the immediate aftermarket.

3.26 In balancing these competing objectives, departments incur two risks. If departments maximise proceeds but fail to achieve a modest aftermarket premium, this may lead to a perception of failure in the sale and reduced investor goodwill in any future sales (and, if stabilisation purchases take place, departments may also be left with a retained shareholding). If, on the other hand, departments achieve a high aftermarket premium, this will signal that they have almost certainly underestimated demand and the share price.

The nature of demand for British Energy shares made pricing difficult

3.27 Many institutions, including a number of institutions rated in the highest quality banding by the syndicate, continued to be cautious about investing in the shares because of the unusual features of the company and the availability of alternative investment options. In addition, at the time of the sale, prices in the utilities market were generally falling, there was some general uncertainty on the New York Stock Exchange and at a late stage in bookbuilding, two reactors (at two separate nuclear power stations) were shut down temporarily for safety inspections.

3.28 Against this background, the ratio of institutional bids to available shares at a particular view of the eventual issue price was never more than about two and a half times at around that price. When bookbuilding closed, institutional cover was 2.41 times at £2.00 and 1.85 times at £2.05 (as bids were in 5 pence multiples there were no actual bids at the strike price of £2.03). This is a relatively low level of cover in UK privatisations. It reflects the difficulties encountered in this sale in attracting institutional demand and compares, for example, to cover at seven and nine times at the issue prices in the second sale of shares in National Power and PowerGen in March 1995.

The Department transferred most of the shares available for transfer between the International and Public Offers to the Public Offer

3.29 The Department judged retail demand to be sufficiently strong to increase the number of shares allocated to the UK Public Offer, from the 30 per cent (183 million) of the total offered, as disclosed in the prospectus, to 43 per cent (260 million shares). This furthered the objective of deepening share ownership. It also increased the scarcity of shares in the International Offer and enabled the

Department to price the shares with greater confidence in the face of continuing relative weakness in institutional demand. Fifty-five million shares were allocated in the retail tender, leaving 295 million to be allocated to investment institutions.

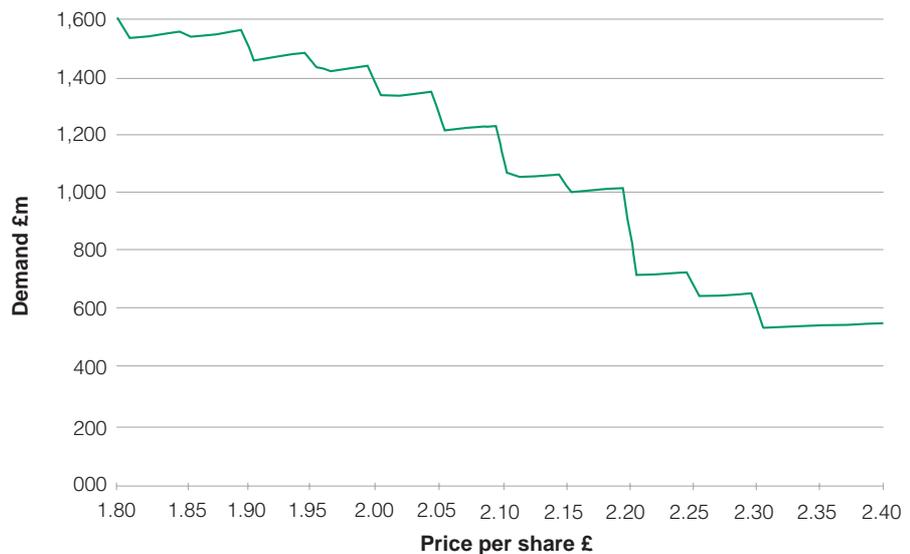
3.30 The expectation that a substantial transfer of shares would be made to the Public Offer was announced on 10 July, two days before the close of bookbuilding. The eventual transfer increased individual share ownership at an estimated cost of some £8 million in proceeds foregone by way of incentives for individual investors. The Department considered that these costs would be off-set by the impact on demand in the International Offer, but did not seek to quantify this. Each penny on the share price represented some £7 million in gross proceeds.

The Department set as high a price as possible

3.31 The Department closed the institutional book on the evening of Friday 12 July. The Department then met with their advisers over the weekend to decide the price at which they would issue the shares and how to allocate shares in accordance with the different elements of the offer. The unusual nature of demand presented them with a difficult pricing decision as there was no obvious point at which institutional demand fell below what would have been assessed as sufficiently robust to sustain the price in the immediate aftermarket (Figure 11).

**British Energy
Total Demand Curve**

Figure 11



This Figure shows that the demand curve resulting from book-building did not show a clear point at which demand fell dramatically.

Source: BZW

3.32 On the basis of institutional demand for the shares, BZW initially advised that the Department should price the shares at 200 pence (fully paid). At this stage, the Department preferred a price of 205 pence because they wished to maximise proceeds and the additional 5 pence on the price represented a potential increase in gross proceeds of £35 million. BZW advised, however, that a price of 200 pence was more likely than one of 205 pence to result in an aftermarket premium because they judged that institutional demand for the shares in the aftermarket was likely to be significantly weaker at the higher price.

3.33 After considerable debate, the Department decided that a price of 203 pence would best balance the objective to secure a modest aftermarket premium and the objective of maximising proceeds. They took this decision, however, in the knowledge that it might nevertheless risk the achievement of the Department’s aftermarket objective. Between 200 pence and 205 pence, the book showed that there was a fall-off in demand for the shares by UK investors, whom BZW expected to be the natural price leaders in this offering (Figure 12).

Institutional demand by region at 200 pence and 205 pence

Figure 12

Region	% of total demand at £2.00	% of total demand at £2.05
UK	45%	42%
US/Canada	14%	15%
Europe	36%	38%
Rest of world	5%	5%
Total	100%	100%

Source: BZW
 This Figure shows a 3% fall-off in demand from UK institutions, expected to be the price leaders in the sale, at a price of 205 pence

British Energy’s share price fell below the offer price but the market appears to have judged the sale to have been broadly successful

3.34 In the immediate aftermarket the price fell below the partly-paid issue price of 105 pence, closing on the first day at 94 pence. In view of the volatility and fall in the share price, BZW undertook share purchases in the market to stabilise the share price over the period 15 July to 14 August. BZW only partially exercised its option to purchase up to 90 million shares from the Department purchasing nine

million shares in this way. After stabilisation, the Department were left holding some 81 million of British Energy's shares, or 11.5 per cent of its original holding, worth £164 million at the offer price.

3.35 The aftermarket discount could have had two potentially damaging results:

- it could have created a perception of failure; or
- meant that the Government might have had to sell its retained 11.5 per cent shareholding for less than 203 pence.

3.36 On the first point, our discussions with institutions and investment banks, including our adviser, Deutsche Morgan Grenfell, have indicated that the overall market perception is not one of failure, but rather of qualified success. This perception is based on a view that the sale of nuclear power stations was inherently difficult and to move British Energy successfully into the private sector was in itself a significant achievement.

3.37 This generally positive perception has been enhanced by subsequent share price movements. The share price remained below the issue price of 105 pence partly paid (203 pence fully paid) for several weeks after the offer, before recovering and subsequently moving to a premium to the offer price (Figure 13). The share price initially under-performed against the FTSE 100 Share Index. Then, following a period of marked out-performance, it returned to a position broadly in line with the Index towards the end of the first 12 month period following flotation (Figure 14).

3.38 The Treasury were subsequently able to benefit from the recovery in the share price by selling the retained shares in December 1996 for gross of proceeds of £198 million, a premium of £33 million to their value at the offer price.

A staged sale process might have increased total proceeds

3.39 The Department considered with their advisers BZW whether to sell all of their shares in British Energy or whether to retain a minority shareholding to be sold in the future. Because British Energy was a new company to investors there was a risk that the shares would have to be priced conservatively. By offering say 60 per cent, the Government would have been left with 40 per cent to be sold later by which time the market could have reached a more balanced view of the value of the shares.

British Energy share price in the 12 months after the sale

Figure 13

Price per share (pence)



Source: Deutsche Morgan Grenfell

This Figure shows that the quoted share price expressed on a fully paid basis for British Energy on the London Stock Exchange fell below the issue price until October 1996.

British Energy relative to the FTSE 100 Share Index in the 12 months after the sale

Figure 14



Source: Deutsche Morgan Grenfell

This Figure shows that, following a period of underperformance against the FTSE 100 Index after flotation, the share price of British Energy subsequently rose rapidly, and closed its first year performing broadly in line with the Index.

3.40 The Department initially decided to aim to sell 100 per cent of their shares following advice from BZW in September 1995. They confirmed this intention in March 1996 during negotiations on the financial structure of the company. BZW considered:

- a) **Size of offer:** a sale of say 60 per cent of the shares might mean the Department sold too few shares to satisfy the demand of investing institutions and, without raising selling commissions, provide too little incentive to attract banks to compete to sell the shares. BZW suggested that an International Offer of around \$1 billion was a threshold below which, as a result, proceeds might be seriously threatened.
- b) **Risk of renationalisation:** that investors, in the view of BZW, might perceive a risk of renationalisation in the event of a change of Government and that this might have a negative effect on proceeds in a partial sale. Dewe Rogerson, the Department's Public Relations advisers, also considered that this could be a real risk.
- c) **Capacity for unexpected future growth:** that British Energy's likely capacity for unexpected profits growth was constrained because the company had been operating in the competitive electricity generating market for several years and, as a result, had already made significant efficiency gains.
- d) **Additional costs of sale:** that two sales would involve additional costs of sale.

3.41 BZW stressed that their advice was contingent on the Department obtaining an acceptable outcome to their negotiations on the financial structure of the company and recommended that the directors of British Energy should be told that a final decision would not be taken until the close of these negotiations. The Department followed this advice and kept the option of a partial sale open in negotiations with British Energy. They did not formally ask BZW again to review their advice before the close of negotiations and publication of the Pathfinder prospectus, in June 1996, but considered this matter in discussion.

3.42 During our examination BZW told us that they considered that the weightiest argument against a partial sale was that a sale of less than 100 per cent of British Energy would have been too small to support a competitive bookbuilding process run by an international banking syndicate. BZW said that they could have sold 60 per cent of the company's shares but not through as competitive a process as is provided by international bookbuilding. The share price realised for the 60 per cent might have been rather less than that realised in a 100 per cent sale. BZW considered that it was difficult to estimate whether that loss might have been more than offset by the gain on the subsequent sale of the remaining 40 per cent.

3.43 As noted above, the market initially found it hard to value British Energy. Subsequent improvements in the share price, as well as the actual premium realised by the Treasury in disposing of the Government’s residual 11.5 per cent shareholding, suggest that a partial sale may have offered the taxpayer financial advantages. This outcome indicates the importance to departments of fully exploring the arguments for a partial sale and accords with a view frequently expressed by the Committee of Public Accounts. In their 13th Report, Session 1996-97, on the Second Sale of Shares in National Power and PowerGen, the Committee pointed out:

“where the market value of the shares is uncertain, it may be advantageous to conduct such sales in stages.”

3.44 We consider that the further evidence provided by the outcome of this sale indicates that departments should in future sales start with a presumption that shares should be sold on a staged basis, and that before a final decision is taken to proceed with a 100 per cent sale, the case for a staged sale should be considered carefully. Although the relative size of the British Energy sale may have made the decision to sell the shares in stages finely balanced, the Department might nevertheless have improved their consideration of these matters by commissioning BZW to produce a final report on options towards the end of the financial structure negotiations which fully:

- reviewed the general arguments; and
- quantified as far as possible the financial consequences.

The Department kept the costs of sale under control

3.45 The Department estimate the costs of carrying out the sales, excluding their own staff costs, value added tax, stamp duty, costs incurred by British Energy and incentives for investors, at some £32 million or 2.3per cent of gross equity proceeds (Figure 15).

**Estimated equity
proceeds and costs of
sale**

Figure 15

<i>Value of shares sold</i>	<i>£ million</i>	<i>£ million</i>
International Offer	617	
Public Offer and employee and pensioner offers	528	
Retail Tender	111	1,256
Subsequent sale in December 1996 of residual shares		198
Less: proceeds foregone by way of incentives		
1st instalment discount	(12)	
2nd instalment discount	(6)	
Bonus shares	(10)	
Employees's free and matching shares and discount	(6)	(34)
Gross equity proceeds		1,420
Less: sale costs		
Advisers fees	(11)	
International offer commissions and overseas costs	(9)	
Share Shop commissions	(6)	
Receiving banks, printing and other logistics	(4)	
Marketing	(2)	(32)
Estimated total net equity proceeds		1,388

This Figure shows the estimated equity proceeds and costs of sale, excluding value added tax and stamp duty.

Source: The Department

Incentives in the Public Offer were in line with past flotations

3.46 In setting incentives the Department sought to maximise demand from experienced investors while minimising these costs. In practice, the proximity of this sale to the sale of Railtrack (which took place on 20 May 1996) meant that incentives were driven in amount by the levels of incentive available in that sale. The incentives in the sale of British Energy were:

- 5 pence discount on the first instalment;
- 10 pence discount on the second instalment or a bonus share of one for every 15 shares purchased and held continuously up to 31 July 1999.

3.47 At £34 million (2.4 per cent of gross equity proceeds), the gross costs of these incentives compared well to similar costs in other recent UK Government share sales. The gross costs of incentives in the second sale of shares in National Power and PowerGen in 1995 were £110 million (3.1 per cent); in the third sale of shares in British Telecommunications in 1994, these costs were £203 million (3.8 per cent).

3.48 BZW initially advised that first instalment discounts might not be necessary in this sale, and that to drop them might increase net proceeds by some £15 million. Had this step been taken, this would have been the first book-built Government share sale with a Public Offer to dispense with these costs. The Department, however, feared that removing such incentives might have reduced public demand due to negative press comment and unflattering comparison with the sale of Railtrack.

Advisory fees were controlled in accordance with appropriate guidelines

3.49 The Department sought to minimise the fees paid to their advisers by conducting competitions for key advisory appointments, negotiating caps on fees, and monitoring costs progressively throughout the project. The Department's internal audit division reviewed advisory engagement procedures, concluding that they had been soundly applied in accordance with departmental and wider procurement guidance. Internal audit also concluded that the Department had engaged in firm and rigorous negotiations with potential advisers with regard to fees.

3.50 Single tenders were issued by the Department, and approved by the Treasury, for three of the Department's principal advisers and contractors (reporting accountants, retail adviser and the Royal Mail). The Department justified each of these appointments by reference to key previous experience and expertise which they saw in the firms appointed, and in respect of the Royal Mail, by the lack of any practicable alternative service provider. In respect of the reporting accountants, the two firms appointed were the auditors of Nuclear Electric plc and Scottish Nuclear Limited; the retail adviser was already engaged in carrying out similar work on the sale of Railtrack. The principal advisers and contractors appointed by the Department are listed at Appendix 3.

Syndicate commissions were minimised

3.51 Commissions were paid to the banking syndicate at a rate of 1.25 per cent. This was lower than the rate paid in the sale of Railtrack. It represents a saving of £1.9 million compared to the commissions that would have been paid at 1.495 per cent, the rate payable in the sale of Railtrack. Share Shop commissions, at 1 per cent, were at the same rate as in the sale of Railtrack.

Glossary

AGR (advanced gas-cooled reactor)	The second generation of gas-cooled nuclear reactor. AGRs use enriched uranium dioxide fuel clad in stainless steel, and operate at higher temperatures and efficiency than Magnox reactors from which the design was developed.
Aftermarket	The period following the start of dealing in the part-paid shares on the London Stock Exchange.
Bookbuilding	Indications from investors in terms of the numbers of shares at different prices they would be willing to purchase.
Decommissioning	The process whereby a nuclear power station is shut down at the end of its economic life and eventually dismantled, and the site made available for other purposes.
Financial Times Stock Exchange (FTSE) 100 Share Index	An index of share prices of 100 of the largest companies quoted on the London Stock Exchange.
Gilts (Gilt-edged securities)/ Index-linked gilts	Gilts are Government loans issued to fund its spending. Index-linked gilts are gilts, the interest and capital of which change in line with the Retail Price Index.
Institutional investors	Institutions such as pension funds and life assurance companies who invest in shares on behalf of their clients.
Magnox reactor	First generation of British gas-cooled, graphite-moderated reactors. The name comes from the non-oxidising magnesium alloy which surrounds the uranium fuel.
Nuclear Review	The Government White Paper “The Prospects for Nuclear Power in the UK” (Cmd 2860) published in May 1995.
PWR (pressurised water reactor)	The most recent type of nuclear reactor to be built in the UK, which uses pressurised water as coolant and moderator.
Pathfinder/ Sale prospectus	Document giving details a company is required to make public to support a share issue. A pathfinder prospectus excludes pricing information and is issued a week or two in advance of institutional bidding and publication of the full sale prospectus.

Radioactive Waste (Low, Intermediate and High Levels)	Radioactive waste is classified according to its heat generating capacity and radioactivity. Low Level Waste comprises slightly radioactive materials, such as discarded protective clothing. Intermediate Level Waste comprises more radioactive materials, including materials arising from reprocessing spent fuel and some components arising from plant decommissioning. High Level Waste comprises nuclear waste products separated out from uranium and plutonium during spent fuel reprocessing.
Review of Radioactive Waste Management Policy (final conclusions)	The Government White Paper which examined current radioactive waste management policy published in July 1995 (Cmd 2919).
Staged share sale	The sale of a company by flotation of shares in two or more separately staged tranches.
TWh - Terawatt hour	A unit of electrical energy equal to 1,000 million kilowatt hours. A kilowatt hour is the energy that a single bar electric fire uses in one hour.

Chronology of key events

- 1989** The Government announce that nuclear power stations were being withdrawn from the privatisation of the rest of the electricity supply industry. At the same time, the Government say they will undertake a review of the prospects for nuclear power in 1994.
- 1990** The Government privatises by flotation the then 12 Regional Electricity Companies in England and Wales.
- 1991** The Government privatises by flotation the non-nuclear electricity generation industry in England and Wales and the integrated non-nuclear generation and distribution industry in Scotland.
- May 1994** The Government begins its review of the prospects for nuclear power (the Nuclear Review).
- May 1995** Publication of the conclusions of the Nuclear Review, including those relating to the privatisation of the more modern nuclear power stations and the establishment of a Nuclear Decommissioning Fund to provide for the costs of decommissioning nuclear power stations for nuclear power generators in the private sector.
- July 1995** BZW appointed financial adviser and global co-ordinator for the forthcoming sale.
- December 1995** A shadow board for British Energy, the holding company which will own the more modern nuclear power stations, is established.
- February 1996** Publication of House of Commons Trade and Industry Select Committee report on Nuclear Privatisation (2nd Report 1995-96 HC43-1).
- 29 March 1996** British Energy and its subsidiaries sign the Nuclear Decommissioning Agreement with the trustees of the Nuclear Trust, establishing the Nuclear Decommissioning Fund.
- 31 March 1996** The UK nuclear generating industry is formally reorganised and the companies vested in their new entities: the holding company British Energy, its two subsidiaries Nuclear Electric Limited and Scottish Nuclear Limited, and the company to remain in the public sector Magnox Electric. The Nuclear Installations Inspectorate grant nuclear site licences to all the Nuclear Electric Limited, Scottish Nuclear Limited and Magnox Electric power stations.
- 24 April 1996** Syndicate banks appointed for the sale of British Energy.

28 May 1996	Start of Offer marketing campaign and of period in which private investors can register interest in buying shares in the UK Public Offer.
5 June 1996	The directors of British Energy and the Minister of State for Trade and Industry agree that British Energy's opening financial structure will include debt of £600m and that the company will forecast a dividend of £96m for its first year in the private sector.
6 June 1996	Incentives in the UK Public Offer announced.
10 June 1996	The pathfinder sale prospectus is published including details of the forecast dividend.
14 June 1996	Close of UK Public Offer registration period.
26 June 1996	i) Publication of the full sale prospectus, including details of the expected price range and of discounts available in the UK Public Offer ii) Applications invited for shares from private investors, employees and pensioners, and opening of bookbuilding for institutional bids.
10 July 1996	Close of the UK Public Offer.
12 July 1996	Close of the book for institutional bids under the International Offer.
12-14 July 1996	BZW and the Department liaise over the most appropriate price to set for the shares.
15 July 1996	i) First day of trading following announcement by the Department that the fully paid issue price will be 203 pence (105 pence part paid). ii) The shares immediately fall to a discount to the issue price, closing the first day of trading at 94 pence (part paid). iii) BZW undertake stabilisation purchases in the market.

14 August 1996

BZW end stabilisation trading. The Department are left owning 81 million shares.

December 1996

The Treasury sell the Government's retained shareholding of 81 million shares at a 41 pence premium to the price set at flotation in July 1996.

Appendix 1

Scope and methodology of the National Audit Office's examination

Scope

1 The National Audit Office examined how far the Department met their objectives for the sale. The Department's formally approved objectives were:

- a) to create a robust private sector company with long-term viability.
- b) to maximise net proceeds, ensuring the appropriate allocation of liabilities to the private sector and the creation of a robust continuing public sector entity (Magnox Electric).
- c) to widen and deepen share ownership.
- d) to achieve a modest premium over the offer price in the period immediately following the start of dealings on the Stock Exchange and, over time, performance broadly in line with relevant stock market trends, so that investors and the market consider the Offer to have been a success.
- e) to comply with the relevant recommendations of the Cadbury and Greenbury Committee reports, and to ensure that the companies do.

2 The examination assessed the extent to which the Department achieved:

- a) their objective to create British Energy as a robust private sector company, with the capacity to meet all its nuclear liabilities (Part 1 of the Report).
- b) their proceeds and other sale objectives (Parts 2 and 3).

Methodology

3 The National Audit Office:

- a) collected and examined information about the sale of British Energy from the Department's records and other sources.

- b) discussed the outcome with departmental officials, their financial and other advisers, the Boards of Directors of British Energy and Magnox Electric, the Health and Safety Executive's Nuclear Installations Inspectorate, the Trustees of the Nuclear Decommissioning Fund, British Nuclear Fuels plc, members of the banking syndicate and a sample of institutional investors.
- c) obtained merchant bank and actuarial advice.
- d) evaluated the information and advice received.

The use of merchant bank and actuarial advisers

4 Following competitive tendering processes, the National Audit Office engaged the merchant bank, Deutsche Morgan Grenfell, and the firm of actuaries, Bacon & Woodrow, to provide advice in the following specialised areas:

- a) financial advice: Deutsche Morgan Grenfell advised on the outcome of negotiations between the Department and British Energy on the financial structure of the company (Part 2 of the Report) and on the conduct of the sale (Part 3). They jointly conducted with the National Audit Office a series of meetings with the Department's financial adviser and our meetings with other members of the banking syndicate and institutional investors.
- b) actuarial advice: Bacon & Woodrow advised on investment management aspects of the Nuclear Decommissioning Fund (Part 1 of the Report).

Evaluation of the information collected

5 Our evaluation led to conclusions on the following key issues:

Part 1

- a) the strength of assurances obtained by the Department that British Energy was a robust company with the capacity to meet all its nuclear liabilities and on the degree to which, in their oversight of the process of allocating the assets and liabilities of the existing nuclear power generation industry to British Energy and Magnox Electric, the Department obtained assurances that Magnox Electric remained a robust continuing public sector entity.
- b) the actuarial and legal robustness of the Nuclear Decommissioning Fund.
- c) circumstances in which the Government might have to meet some of British Energy's nuclear liabilities.

- d) the extent to which any Government risk is mitigated.

Part 2

- a) the appropriateness of the Department's debt and dividend (and other) objectives in negotiations with the directors of British Energy on the financial structure of the company.
- b) the extent to which the Department achieved these objectives.

Part 3

- a) the appropriateness of the Department's objectives in conducting the International and UK Public Offers.
- b) the extent to which the Department achieved these objectives.
- c) the extent to which the Department controlled their costs of sale.

Appendix 2

Background information on British Energy

British Energy's core business

1 British Energy's principal activity is the generation and sale of electricity. One of the three largest electricity generators in Great Britain, British Energy operates eight nuclear power stations. In the year to 31 March 1997, the British Energy Group's electricity output was 67.9 terawatt-hours, approximately 20 per cent of total electricity output in Great Britain. The locations of British Energy's power stations and principal offices are shown in the map below.

Nuclear electricity generation

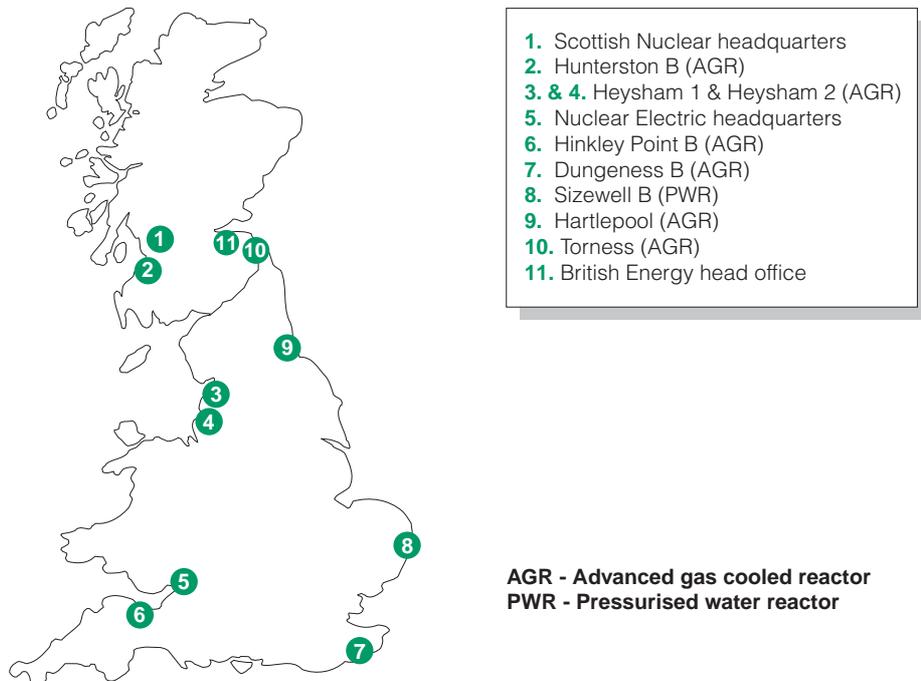
2 Producing electricity at a nuclear power station involves capturing heat released from splitting uranium atoms (nuclear fission) to make steam which drives generator turbines. A nuclear station consumes relatively small amounts of fuel per unit of electricity generated but produces radioactive wastes which require careful handling and disposal. Over time a nuclear station also becomes radioactive requiring complex and costly decommissioning. Although uranium, the fuel, is relatively inexpensive, spent fuel and waste management, station construction and decommissioning represent a higher proportion of the unit costs of electricity produced from nuclear generation compared with fossil fuelled generation.

Nuclear fuel cycle

3 There are several stages in the nuclear fuel cycle. These include fuel preparation and the handling, storage, reprocessing and ultimate disposal of spent fuel and associated waste products.

4 Most of British Energy's fuel cycle services are provided under contract by British Nuclear Fuels plc (BNFL), which is wholly owned by the Government. BNFL is the only available supplier of fuel for British Energy's seven advanced gas-cooled reactors (AGRs) and of reprocessing and long-term storage services in respect of spent AGR fuel. Under these contracts, BNFL is responsible for, among other things, the fabrication of AGR fuel elements and for the treatment, packaging and long-term storage of the spent fuel and associated waste products. Most of these services are provided by BNFL on fixed price terms, subject to indexation.

Location of British Energy's power stations and principal offices



5 British Energy are also responsible for the management and disposal of the nuclear waste arising from their operations not covered by contracts with BNFL. Low level waste is disposed of at BNFL's disposal facility at Drigg, in Cumbria. British Energy has a 10.8 per cent shareholding in, and an obligation to fund 8.4 per cent of the funding of Nirex, the company which has been investigating possible sites for an underground repository for intermediate level and certain low level waste. High level waste, which arises from spent fuel reprocessing, is stored at BNFL's Sellafield site pending a decision on final disposal.

6 In March 1997, the Government announced that the proposed Nirex Rock Characterisation Facility at Sellafield had not been granted planning permission. This has set back the Government's plans for underground disposal of intermediate level waste. British Energy is working with the rest of the nuclear industry and Government to identify future options for the safe storage and disposal of this waste.

Decommissioning

7 Decommissioning of a nuclear power station is the process whereby it is shut down at the end of its economic life and eventually dismantled. British Energy has adopted a decommissioning strategy under which the last stage of decommissioning would commence up to 135 years after station closure (AGRs) and up to 50 years after station closure (Sizewell B). A Nuclear Decommissioning Fund in respect of certain decommissioning costs has been established which is independent of British Energy. British Energy retains full financial and operational responsibility for decommissioning its stations. British Energy's decommissioning strategy and the operation of the Nuclear Decommissioning Fund are considered in detail in Part 1 of this Report.

Safety and the environment

8 The use of a site for such activities as installing and operating a nuclear power station requires a nuclear site licence to be granted by the Health and Safety Executive. Safety is the responsibility of the nuclear site licence holder. The Nuclear Installations Inspectorate, which is part of the Health and Safety Executive, administers the licence, under the provisions of the Nuclear Installations Act 1965 and other legislation.

9 Before a nuclear site licence is granted, the Nuclear Installations Inspectorate must be satisfied as to the safety of the design, construction, operation and eventual decommissioning of the installation and the ability of the applicant to understand and meet its obligations. The safety of the installation is demonstrated throughout its life-cycle through written safety cases which the Nuclear Installations Inspectorate assess. Nuclear site licences conditions require the licensee to make and implement adequate arrangements for decommissioning. Following publication of the then Government's White Paper "Review of Radioactive Waste Management Policy" (Cmd 2919, July 1995) there are specific requirements to review the decommissioning aspects of these arrangements every five years. Applicants must justify their chosen decommissioning strategy and demonstrate that they have adequate funds to carry out the work.

10 The Nuclear Installations Inspectorate scrutinise the activities of the licensee both directly on site and through the assessment of the licensee's written submissions. An inspector is allocated to each nuclear power station and is typically on site one week per month to meet station staff and to check compliance with licence conditions and the safety case. The Nuclear Installations Inspectorate

have powers to issue improvement and prohibition notices, to prosecute licensees and to direct a licensee to shut down a nuclear reactor. Each licence requires the establishment of a Nuclear Safety Committee for each licensed site to provide independent advice to the licensee on significant nuclear safety issues and Periodic Safety Reviews to be carried out at intervals of not more than ten years.

11 The disposal of radioactive wastes is regulated under the Radioactive Substances Act 1993 by the Environment Agency in England and Wales and the Scottish Environment Protection Agency in Scotland. British Energy has obtained the necessary consents and authorisation for the disposal of radioactive wastes and non-radioactive discharges from its stations. There are consultation arrangements between the safety and environmental regulators. In particular, the Nuclear Installations Inspectorate is required to consult the Environment Agency (or the Scottish Environment Protection Agency) before granting a nuclear site licence. The Environment Agency and the Scottish Environment Protection Agency must consult the Nuclear Installations Inspectorate before granting discharge authorisations.

Electricity regulation

12 The electricity industry in Great Britain is subject to regulation under the Electricity Act 1989. The Director General of Electricity Supply is responsible for the enforcement of the electricity licensing regime established under the Electricity Act. The Director General has powers to refer matters to the Monopolies and Mergers Commission. The Electricity Act requires the Director General to exercise his functions under the Act in the manner he considers to be best calculated: to secure that all reasonable demands for electricity are satisfied; to secure that licence holders can finance their licensed activities; and to promote competition in the generation and supply of electricity.

13 In his memorandum of 9 October 1995 to the House of Commons Trade and Industry Committee, the Director General welcomed the increased competition that should result from the restructuring and private ownership of part of the nuclear industry. The Director General has granted licences to British Energy which do not restrict the company to the generation of electricity only from nuclear power stations. British Energy is, however, required to treat nuclear generation as a separate business from any non-nuclear generation. This requires the production of separate accounts for nuclear and any non-nuclear businesses and prohibits cross-subsidy between such separate businesses. Magnox Electric is subject to comparable obligations.

14 British Energy’s subsidiary, Nuclear Electric, sells all its electricity through a market for the bulk-trading of electricity in England and Wales known as the Pool. It runs its generators at a constant level of output for sustained periods of time to meet minimum levels of electricity demand throughout a day, known as “base-load”. Such base-load generators accept prices set by other participants in the Pool to ensure that all the electricity produced by them will be purchased. In Scotland, Scottish Nuclear has a contract to sell all of its electricity to Scottish Power and Hydro-Electric at a price related to the price paid to generators for base-load electricity in England and Wales. Both of British Energy’s nuclear subsidiaries are “price-takers” in these arrangements.

Appendix 3

Principal advisers and contractors appointed by the Department

<i>Firm</i>	<i>Role in sale</i>
BZW Ltd.	Financial adviser
BZW Securities Ltd	Global co-ordinator
Allen and Overy	Legal adviser
Brodies	Legal adviser
Deloitte and Touche	Accounting adviser
Binder Hamlyn ⁽¹⁾	Reporting accountant
Price Waterhouse ⁽¹⁾	Reporting accountant
Royal Bank of Scotland	Receiving bank
Royal Mail ⁽¹⁾	Mailing
Williams Lea	Printer
Lowe Howard Spink ⁽¹⁾	Advertising agency
Dewe Rogerson ⁽¹⁾	Marketing adviser
Solid Solutions Associates	Retail adviser
Imagination ⁽¹⁾	Roadshow adviser
Stone and Webster ⁽¹⁾	Technical adviser
Electrowatt International ⁽¹⁾	Technical adviser
London Economics	Economic adviser
Watson Wyatt ⁽¹⁾	Actuarial adviser

Note 1. these appointments were made jointly with British Energy
