

Part II

# **Background and evidence**

# 3 Northern Ireland and its electricity supply industry

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## Introduction

3.1. This chapter begins by giving some general information on Northern Ireland, covering, for example, population and the economy, and on the energy sector in Northern Ireland (see Figure 3.1). It then looks at the structure of the electricity supply industry in Northern Ireland. Finally the chapter analyses the usage and price of electricity.

## General information on Northern Ireland

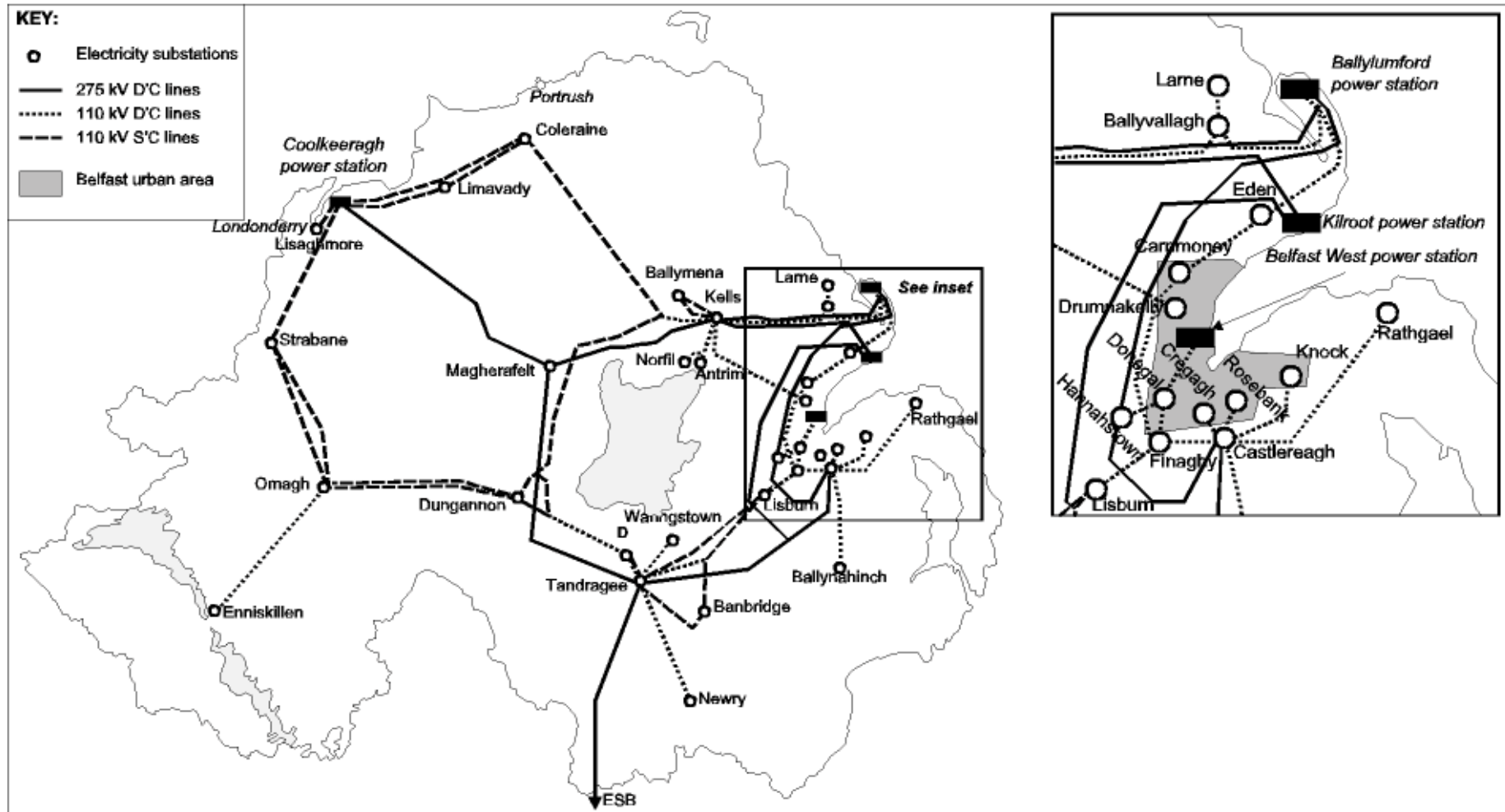
3.2. In 1995 Northern Ireland's population was approximately 1.65 million, about 2.8 per cent of the UK total. Its population has grown from about 1.43 million in 1961, to about 1.54 million in 1971 and in 1981 and around 1.60 million in 1991. Northern Ireland has the highest proportion of younger people and the lowest proportion of older people of the four home countries-24 per cent of its population is less than 15 years of age compared with about 19 per cent for each of the other three countries, and 15 per cent of its population is at or over the state retirement age (65 for men and 60 for women) compared with 18 per cent in Scotland, 18 per cent in England and 20 per cent in Wales. In 1995 the population density in Northern Ireland was approximately half that of the average for Great Britain. It varied considerably from heavily urbanized areas such as Greater Belfast, Londonderry and Craigavon, comprising 44 per cent of the total population, to widely scattered rural communities.

3.3. In 1994 Northern Ireland had a gross domestic product (GDP) of about £13.2 billion, 2.3 per cent of the UK total. The Northern Ireland Economic Research Centre estimated that between 1984 and 1994 Northern Ireland's real GDP grew by 28 per cent (2.5 per cent a year) compared with 24 per cent (2.2 per cent a year) for the UK.

3.4. Table 3.1 shows the breakdown of GDP in Northern Ireland and in the UK for 1994. The table shows that public services and agriculture each accounted for a higher proportion of GDP in Northern Ireland than in the UK. The reverse is true for financial, manufacturing, transport and other services which each accounted for a smaller proportion of GDP in Northern Ireland than in the UK.

FIGURE 3.1

Northern Ireland and its electricity supply industry



Source: NIE.

TABLE 3.1 **The breakdown of GDP\* in Northern Ireland and in the UK in 1994**

	<i>per cent</i>	
	<i>Northern Ireland</i>	<i>UK</i>
Public services†	29.8	17.9
Manufacturing	19.0	20.2
Financial and business services	17.5	25.7
Distribution, hotels and catering, repairs	12.4	13.9
Transport, storage, communication	5.2	8.2
Construction	5.3	5.2
Agriculture, hunting, forestry, fishing	4.8	1.9
Other‡	<u>6.0</u>	<u>6.9</u>
Total	100.0	100.0
Total (£b)	13.6	570.4

*Source: Regional Trends, 1996 edition.*

\*Factor costs at current prices, deducting stock appreciation.

†Public administration, defence, education, social work, health services.

‡Mining, quarrying (including oil and gas extraction), electricity, gas, water and other services.

3.5. In 1994 GDP per head in Northern Ireland was just over £8,000, 82 per cent of the UK average. In part the difference between Northern Ireland and the UK reflects higher dependency levels in Northern Ireland—higher unemployment, lower economic activity rates and a more youthful population. In 1994/95 average gross weekly household income was about £326 in Northern Ireland, 88 per cent of the average in the UK, the difference being less for women (91 per cent) than for men (86 per cent) and less for women with non-manual jobs (88 per cent for men and 92 per cent for women).

3.6. Unemployment rates are much higher in Northern Ireland than in the rest of the UK. In January 1997 seasonally adjusted unemployment was 9.2 per cent of Northern Ireland's workforce compared with 6.5 per cent for the UK as a whole. There are significant disparities in unemployment rates within Northern Ireland, ranging from 6.0 per cent in Ballymena<sup>1</sup> to 15.3 per cent in Strabane. In some areas, male unemployment is particularly high: in Strabane and Londonderry male unemployment rates were 20.3 per cent and 18.6 per cent respectively.

### ***Inward investment***

3.7. Table 3.2 shows an indication of the inward investment into each of the four home countries.

<sup>1</sup>Unemployment for this and other areas is based on travel-to-work areas.

TABLE 3.2 Direct inward investment:\* project successes†

	<i>number</i>					
	<i>1984</i>	<i>1986</i>	<i>1991</i>	<i>1992</i>	<i>1993</i>	<i>1994</i>
England	185	253	238	187	241	308
Wales	51	51	74	76	53	60
Scotland	74	39	32	42	80	85
Northern Ireland	<u>31</u>	<u>18</u>	<u>18</u>	<u>17</u>	<u>14</u>	<u>19</u>
Total	341	361	362	322	388	472

Source: *Regional Trends*, 1996 edition.

\*These figures are based on information provided to the Invest in Britain Bureau of the Department of Trade and Industry by companies at the time of the announcement of the decision to invest. There is no requirement to notify the Department of Trade and Industry, and so the figures include only those projects where the Invest in Britain Bureau or its regional partners were involved, or which have come to their notice. They take no account of subsequent developments.

†Defined as a case where an overseas company specifies an interest and successfully completes investment in a UK company.

3.8. The DED told us that Coopers & Lybrand carried out a study of inward investment into Northern Ireland compared with other parts of the UK and with the Republic of Ireland. The report, entitled *Inward Investment in the British Isles*, was published in April 1996.<sup>1</sup> The study found that:

- Over the last five years, the Industrial Development Board<sup>2</sup> had successfully attracted new inward investment projects to Northern Ireland promising employment for almost 8,000 people, about 8 per cent of the current manufacturing workforce.
- During 1994/95, Northern Ireland was ranked second out of 11 UK regions in terms of number of inward investment jobs per capita-it attracted 9 per cent of all new inward investment jobs with under 3 per cent of the UK's population.
- Northern Ireland faced the greatest competition for inward investment with 84 per cent of the companies which located in the province having considered at least one other location-the Republic of Ireland is Northern Ireland's main competitor.
- The key investment consideration was available labour (the next two in importance were labour skills and grants)-in terms of the availability of a pool of labour, Northern Ireland scored the highest out of six UK regions.
- Some companies referred to high transport and energy costs in Northern Ireland. However, the main advantage discovered after locating in Northern Ireland was that operating costs were significantly lower than anticipated, even when electricity and transport were included.
- 73 per cent of firms were planning further investment in Northern Ireland, and when grossed up the value of these investments exceed £270 million.
- The level of unrest might well be the sole reason why Northern Ireland had lost a significant number of inward investment projects in the past. However, the cease-fire had a less than expected impact on companies already operating in the British Isles in that they were adopting a 'wait and see' attitude before committing themselves to future investment opportunities in Northern Ireland.
- When all the information in the pre-investment study was weighted, Northern Ireland was the fourth most attractive location in the British Isles including the Republic of Ireland. However, when those

<sup>1</sup>In its report Coopers & Lybrand says that it interviewed a representative sample of the 3,925 inward investment companies currently operating in Northern Ireland, Scotland, England and Wales. In addition, it says that interviews were conducted with a sample of the 1,104 inward investment companies which had located in the Republic of Ireland.

<sup>2</sup>An arm of the DED, which is the lead organization for attracting inward investment to Northern Ireland.

companies already operating throughout the British Isles including the Republic of Ireland were asked to revise their preferences based on actual experience, Northern Ireland rose to second place overall out of the seven regional locations examined.

## The energy sector in Northern Ireland

3.9. Table 3.3 shows that coal and oil are Northern Ireland's main primary energy sources.

TABLE 3.3 Primary energy sources in Northern Ireland and in the UK in 1993\*

	<i>per cent</i>	
	<i>Northern Ireland</i>	<i>UK</i>
Oil	69.0	36.0
Coal	<u>31.0</u>	25.0
Gas	28.0	
Nuclear	10.0	
Net imports	<u>1.0</u>	
Total	100.0	100.0
Total (MTOE†)	5.34	220.5

*Source:* DED.

\*Latest year available.

†Million tonnes of oil equivalent (1 MTOE= 397 million therms).

3.10. Northern Ireland has no primary sources of energy except for lignite. Historically it did not have a natural gas supply. Following its purchase of the Ballylumford power station there in 1992, British Gas built a gas pipeline to Northern Ireland and converted the station from oil to gas firing. The station began using gas in October 1996. A partly-owned subsidiary of BG, Phoenix Natural Gas Ltd, has been awarded a licence to supply gas to customers in the Greater Belfast and Larne areas and the DED believes that gas will develop into a major primary energy source, reducing the dependency on oil and coal. Minor primary energy sources are LNG (liquified natural gas-bottled gas) and renewables. DED told us that renewable energy was important as it would improve the environment, diversify generation, contribute to economic development and enhance the ability of Northern Ireland companies to compete in the rapidly growing world market for non-fossil energy.

3.11. Table 3.4 shows final energy demand (excluding the transport sector) in Northern Ireland and in the UK in 1993 broken down by fuel types.

TABLE 3.4 Final energy demand in Northern Ireland and in the UK in 1993\*†

	<i>per cent</i>	
	<i>Northern Ireland</i>	<i>UK</i>
Oil	48.0	16.0
Coal	32.0	13.0
Electricity	<u>20.0</u>	24.0
Gas	<u>47.0</u>	
Total	100.0	100.0
Total (MTOE)	2.75	101.9

*Source:* DED.

\*Latest year available.

†Excludes LNG for Northern Ireland.

3.12. The table shows the far greater dependence on oil and coal in Northern Ireland compared with the UK as a whole. Electricity usage is somewhat lower in Northern Ireland, although the difference is far less marked than for the other energy sources. The DED said that with the advent of natural gas, Northern Ireland's pattern of final energy demand should start to converge on that in the rest of the UK.

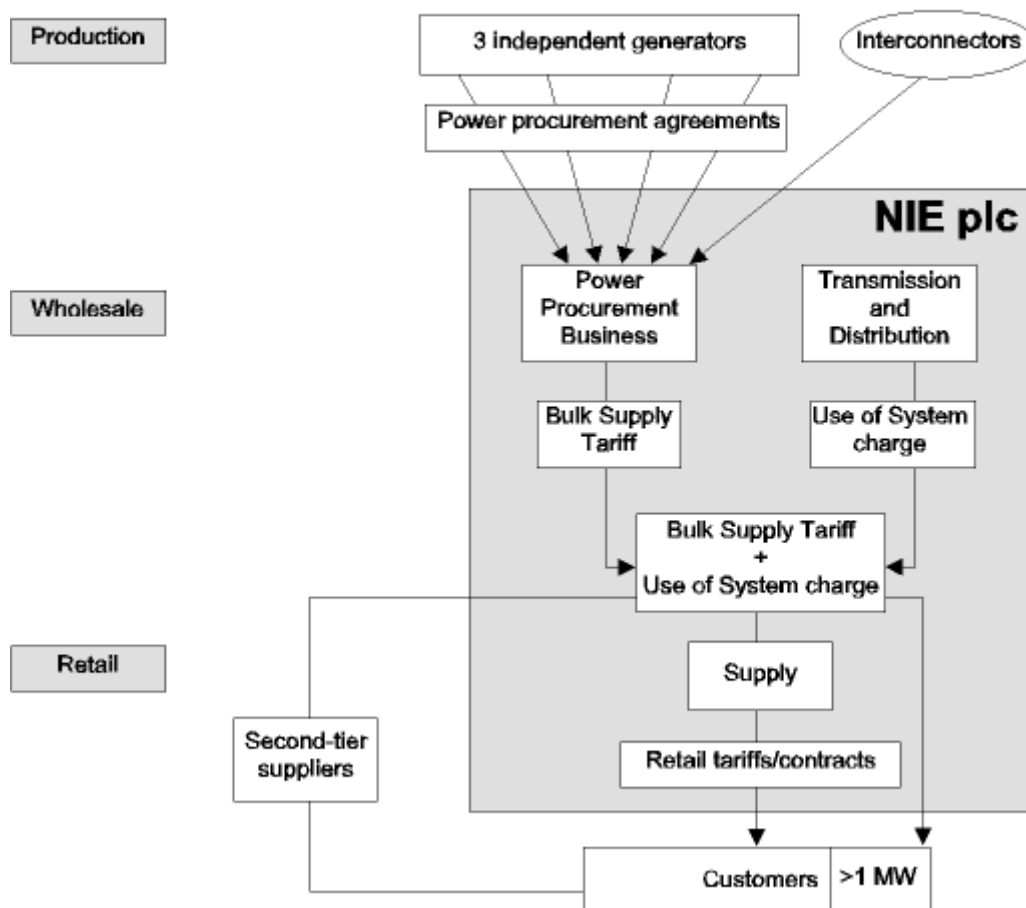
### Structure of the electricity supply industry in Northern Ireland

3.13. In March 1991 the UK Government published proposals<sup>1</sup> for the restructuring of the electricity supply industry in Northern Ireland and its return to private ownership. The stated aim was to provide a framework for the introduction of competition into the generation and supply of electricity in Northern Ireland. The Government proposed that the then state-owned vertically integrated structure should be broken up, with the power stations to be sold separately to two or more independent companies and the remainder of the industry to be kept within the control of a single company which would be listed on the London Stock Exchange.

3.14. The new industry structure (see Figure 3.2) was introduced on 1 April 1992. In 1992 the four power stations in Northern Ireland were sold by way of a trade sale and are now owned by three separate companies (see paragraph 3.19). The remaining activities of the electricity supply industry were vested in NIE which was floated in June 1993. NIE has three main regulated businesses: Power Procurement, T&D and Supply.

FIGURE 3.2

#### Structure of the Northern Ireland electricity supply industry



Source: MMC study.

<sup>1</sup>Privatisation of Northern Ireland Electricity, March 1991, Cm 1469.

3.15. The DG told us that in many respects NIE was similar to a REC in England and Wales, its core business being the same as that of the RECs-namely electricity distribution through the ownership and management of a natural and therefore regulated monopoly. He added, however, that there were also important differences. These-as seen by the DG-may be summarized as follows:

- NIE is not permitted to own generating capacity other than that using non-fossil fuels, whereas the RECs may own up to 15 per cent of their own generating requirements (see paragraph 3.20).<sup>1</sup>
- NIE is not permitted to own CHP plants.
- NIE is responsible for transmission, which in England and Wales is in the hands of NGG.
- NIE has no gas supply business and is not permitted to own an interest in gas pipelines.
- NIE has a PPB which is a monopsonist purchaser of all electricity produced in Northern Ireland other than for self-generation.
- NIE has to purchase power from generators under long-term contracts.

3.16. The DG stated that in his view there were other differences between the RECs and NIE. These were:

- NIE's Supply Business would not face full competition after 1998 or even limited competition in supplying customers with demand over 100 kW now. In theory the Supply Business was already open to competition but the entrenched generation monopolies meant that serious competition in supply must await other structural changes in the electricity supply industry.
- NIE faced no competition from gas. Although a gas industry was beginning its rate of build-up, its restriction to the Belfast area meant that its market share would not be substantial during the forthcoming price control period.
- NIE operated in a system which was in UK terms an island system and consequently was a fairly detached member of the UK electricity supply industry. It was privatized 2½ years later than the RECs, did not share the same experience and was, for example, the last to join the Energy Savings Trust; NIE was the only electricity company to have a separate regulator and might therefore be regarded as subject to a different regulatory risk.

3.17. The electricity supply industry structure in Northern Ireland also differs from that in Scotland, where SHE and ScottishPower are fully integrated vertically from generation right through to supply.

3.18. We now look at each of the five components of Northern Ireland's electricity supply industry.

## ***Generation***

3.19. Northern Ireland is almost totally reliant on its four existing thermal power stations which have a total capacity of 2,243 MW. The peak system demand in Northern Ireland is currently 1,515 MW. Ballylumford is the largest station with a capacity of 1,067 MW. It is owned by Premier Power Ltd, now a subsidiary of BG. The second-largest station is Kilroot which has a capacity of 578 MW. Kilroot and Belfast West, the smallest of the four stations with a capacity of 240 MW, are owned by Nigen, whose parent companies are AES Corporation of the USA and Tractebel SA of Belgium. Belfast West is fuelled by coal, as is Kilroot. However, Kilroot also has a dual oil- and coal-fired capability. The remaining station is Coolkeeragh, with a capacity of 358 MW, which is privately owned, with 60 per cent of the shares held by management and workers and 40 per cent held by institutions and investors (see Appendix 3.1).

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<sup>1</sup>The DG told us that Eastern Electricity (Eastern) had obtained consent to exceed this limit.

3.20. Under the terms of its licence, NIE is prohibited from owning any thermal generating capacity in Northern Ireland. It is permitted to own up to 5 MW-which can be increased by agreement with the DG-of non-fossil fuel generating capacity. To date, NIE does not own any such stations.

3.21. The Government is committed to electricity generation via renewable energy sources as an alternative to fossil fuel sources and its policy is implemented through the operation of the NFFO. By Government Order, NIE must contract for a certain amount of renewable generation capacity. This obligation has recently been extended through the making of a second NFFO Order (dated 4 September 1996) which, when combined with the first Order (made on 31 March 1994), has resulted in 30 contracts for renewable energy giving NIE an obligation to contract for just over 30 MW of renewable capacity (1 per cent of total capacity).

3.22. A very small amount of electricity is purchased from customers with their own generation capacity where output exceeds the on-site requirements.

3.23. In a recent consultation paper,<sup>1</sup> the DG implied that in the early years of the next decade (2002/03) new generation might be needed to satisfy the growing demand in Northern Ireland. The DG's view assumed the absence of any generation from the Belfast West power station (as it would no longer be under contract), the loss of two generating sets at Coolkeeragh power station (again no longer under contract) and a 1.8 per cent annual growth in peak demand, as shown in the latter years of NIE's seven-year statement.

### ***The Power Procurement Business***

3.24. The arrangements for trading bulk supplies of electricity are defined in the Supply Competition Code, introduced in April 1992, which requires all licensed generators to sell all of their capacity and output to NIE's PPB. Similarly, all suppliers must buy all of their electricity from the PPB. Transactions between NIE's PPB and suppliers, including NIE's own Supply Business, take place at the Bulk Supply Tariff, a published tariff which is regulated and which places all suppliers on an equal footing. The arrangement between generators and suppliers in Northern Ireland differs from that in England and Wales where generators and suppliers can and do deal direct with each other.

3.25. The PPB has responsibility for deciding in which order the generating plant is used (central despatch) and for the control of the transmission system in order to meet demand for electricity on a day-to-day basis, and for ensuring the availability of sufficient generation capacity over the longer term.

3.26. The PPAs between NIE and the generators were put in place by the Government at vesting. PPAs set out the terms under which power is sold by the generators to NIE, including the price paid for output. They were designed to run for the remaining economic life of each generating set, hence the oldest sets (at Belfast West power station) have PPAs which expire between 1997 and 1999 and the most modern sets (at Kilroot) have PPAs which run until 2024. The PPAs also contain a clause which allows the DG to cancel them before their expiry date in order to introduce a competitive system for wholesale electricity trading (WETS). The earliest date on which cancellation could take place varies according to each set and is set out in the PPA itself. The earliest cancellation dates range between 1996 and 2010 and there are a number of conditions which must be satisfied before the DG can exercise this right. Appendix 3.1 shows the various expiry dates and earliest cancellation dates for each set. We asked the DG what the latest position was regarding the cancellation of PPAs. He told us that the matter was under review.

3.27. The PPAs include two types of payments: payments for availability of generation capacity and payments for supply of energy. Availability payments provide a financial incentive to the generators to make available the required capacity to ensure security of supply. These payments are intended to contribute towards the fixed costs of the generators. Energy payments reimburse the costs of running the generating units and sending out the electricity. They are calculated by reference to each unit's contracted level of thermal efficiency and an indexed fuel price which varies each month.

3.28. The availability of the generators has been much higher than the level expected at the time the stations were valued (see Table 3.5). In the case of the three smaller stations, availability is about

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<sup>1</sup> *Consumer choice, competition and prices*: a consultation paper by the DG, January 1996.

20 percentage points higher than that anticipated at the valuation stage. In the case of Ballylumford the increase has been much smaller. This increase in availability has resulted in availability payments accounting for a larger proportion of total payments than that expected at the valuation stage (see Table 5.3 for a breakdown of the PPB's costs in terms of energy and availability payments). Generation costs alone account for over 60 per cent of the total costs of electricity in Northern Ireland while for larger industrial users such costs can account for as much as 80 per cent of their final bill. In England and Wales, generation costs account for 52 per cent of customers' electricity bills and for about 70 per cent of large users' bills.

TABLE 3.5 Availability levels of the generating stations

Generating station	Historic averages to 1990/91	Used to value the stations	Availability levels				per cent
			Achieved by generating companies				1995/96
			1992/93	1993/94	1994/95	1995/96	
Kilroot	71.6*	75.6	95.9	95.5	93.4	98.2	
Ballylumford	73.2†	78.4	78.1	88.4	80.4	81.6	
Belfast West	79.9‡	74.5	92.8	99.6	95.4	97.5	
Coolkeeragh	73.9†	76.6	97.6	98.9	97.6	97.8	

Source: NIAO Report on *The Privatisation of NIE*, 26 October 1994 and NIE.

\*Based on two years.

†Based on five years.

‡Based on four years.

3.29. The DG is examining the prospect of ending the requirement that all electricity produced must be sold to the PPB. He pointed out that this requirement had already been relaxed with regard to self-generation projects. In his consultation paper, published in January 1996 (see paragraph 3.23), he stated that by 1997 or possibly earlier there would be uncontracted generation sets in Northern Ireland. In the paper he also stated that it might be possible for those sets to sell direct to customers which might be either single end-users or even second-tier suppliers who in turn would sell on to end-users. One possibility would be progressively to introduce these direct sales by beginning with the largest customers. The DG stated that if these sales provided real benefits then the market might be progressively opened up over a period of time.

### **Interconnectors**

3.30. The interconnector between the Republic of Ireland and Northern Ireland which has a capacity of 300 MW was restored to service in the spring of 1995. It provides mutual support during shortfalls in either system.

3.31. NIE and ScottishPower have an agreement to trade electricity across a 250 MW interconnector which they have contracted to build between Northern Ireland and Scotland. Under the agreement, ScottishPower has agreed to provide NIE with electricity, at prices related to those of the wholesale electricity Pool in England and Wales, for a period of at least 15 years from the date of commissioning of the interconnector. If the interconnector is established NIE will be committed to pay charges in respect of 1,250 GWh a year to ScottishPower over the first 15 years after commissioning, representing 57 per cent of the annual capacity of the link (roughly 20 per cent of Northern Ireland's annual demand), although there is a mechanism by which power which is not taken is subject to significantly reduced charges.

3.32. Permission to build the Scottish interconnector has not yet been granted. The Secretary of State for Scotland announced in November 1996 that he was minded to approve the interconnector subject to four sections of it being underground. The Secretary of State asked for and received comments on this aspect of the interconnector by 20 December 1996. At the time our report was submitted, the Secretary of State was considering these representations. On the Northern Ireland side, the planning inquiry concluded that there was a need for the interconnector but that the site of the converter station should be relocated. There will therefore be a need for a new planning application. This will take some months to process, longer if there is another public inquiry. NIE told us that it saw the delays to the project as being not atypical in such a large capital project.

3.33. The DED told us that the Scottish interconnector would provide long-term strategic benefits to Northern Ireland. It said that these benefits were the ability to buy electricity from the Pool; the ability to participate to a greater extent in any liberalized European market; and the ability to diversify fuels that formed the basis of generation in Northern Ireland, so that Northern Ireland would not be too dependent, as it had been, on oil and coal. The DED told us that the interconnector would lead to Northern Ireland having a far more reliable form of generation, which would lead to a reduction in the amount of spinning reserve and spare capacity required there.

### ***Transmission and distribution***

3.34. The T&D Business comprises the planning, development, construction, operation and maintenance of the T&D system which is used to convey electricity from the power stations to customers' premises.

3.35. The equipment and voltages used to transfer electricity from generators to customers are principally determined by the relative economics of transferring electricity at different voltages and by the location and requirements of customers. Higher-voltage networks are used for transferring large amounts of electricity over longer distances, with lower-voltage networks being used to transfer smaller amounts of electricity over shorter distances to the final customers. NIE's transmission system is designed to operate at 275 kV and 110 kV voltages for major transmission lines. The distribution system operates at 33 kV, 11 kV, 6.6 kV and 400/230 V. The higher-voltage networks, together with the 33 kV network, are generally operated on an interconnected basis so that alternative routes are available, thereby avoiding loss of supply to customers when a circuit is taken out of service for maintenance or through faults.

3.36. The T&D system comprises a number of interconnected networks of overhead lines and underground cables which are used for the transfer of electricity from the power stations, via a number of substations, to customers. Because of their higher costs, underground cables are only installed where necessary on engineering or environmental grounds. Of approximately 2,000 circuit km of transmission system in commission at 31 March 1996, some 50 km were underground. The equivalent figures for NIE's distribution network are 40,000 circuit km excluding services, of which 10,000 were underground.

3.37. The networks of lines and cables are marshalled together at substations. The substations contain switchgear, protection equipment and transformers.

3.38. The switchgear performs two main functions, namely:

- to permit the division of the T&D system into smaller sections, enabling supply to be provided to the maximum number of customers following a fault and during system extension or maintenance; and
- to disconnect faulty plant automatically (in order to minimize damage to the plant or other parts of the system).

3.39. NIE told us that switchgear was installed at each of the voltage levels within the T&D system, the majority of it forming part of the 11 kV and 6.6 kV networks. It said that it had found that certain types of ground-mounted 11 kV and 6.6 kV switchgear were prone to significant deterioration. It had progressively been introducing more modern switchgear designs that allowed for a large number of automatic functions without the need for maintenance. It had also used certain types of switchgear that provided greater weather protection than existing equipment.

3.40. Transformers are required to connect networks operating at different voltages. They are categorized according to the voltages of the networks that they connect and their capacity is measured in volt-amperes. Higher-capacity transformers are generally ground-mounted, whilst lower-capacity transformers-normally supplying rural customers-are generally pole-mounted.

### ***Supply***

3.41. Supply comprises the acquisition of electricity from NIE's PPB, Use of System from the T&D Business in order to supply customers, and the billing and collection of customers' accounts.

3.42. Under the Electricity Order, NIE is obliged upon request by the owner or occupier of premises in its authorized area (that is, the whole of Northern Ireland) to give a supply of electricity to those premises and to offer a tariff to customers whose maximum demand does not exceed 1 MW. (Both obligations are subject to certain specified exceptions.) Customers with a maximum demand of over 1 MW can take electricity only under contract, although any customer may become a contract customer with the agreement of NIE.

3.43. A PES supplying outside its authorized area or any other group supplying a competitive customer in any area is known as a second-tier supplier. In Northern Ireland, such suppliers are free to compete for all customers. In contrast to the arrangements for supply in Northern Ireland, there is a supply franchise in Great Britain (see paragraph 3.61). In addition, in Northern Ireland customers whose demand exceeds 1 MW may adopt the status of 'relevant exempt self-supplier' and purchase their electricity direct from the PPB, bypassing NIE's Supply Business. To date no such customers purchase their electricity from the PPB. Customers who purchase electricity from anyone other than NIE's Supply Business require a half-hour meter. The DG told us that these meters and associated communication links cost in the region of £400. NIE told us that such equipment cost £600 to £800 (£300 for a meter, £150 for a modem, £130 for a telephone line and £200 for a radio link). In a recent paper discussing the competitive supply market from 1998 in Great Britain,<sup>1</sup> the Director General of Electricity Supply (DGES) stated that the cost of such meters and associated communication links would be too high for most smaller and domestic customers. He also said that for the majority of smaller and domestic customers, the Pool had decided to introduce a set of load profiles.<sup>2</sup> This should enhance the prospects for competition as it would remove a potential barrier to customers switching suppliers, namely the need to buy a meter. The DG told us that the prospect of introducing load profiling into Northern Ireland was good and significantly easier than in England and Wales since there was no need to reconcile costs to half-hour periods. He said that Northern Electric (Northern) had requested him to make a determination on load profiling in Northern Ireland and that this should be finalized shortly. The DG stated that NIE already had load profiles available and it appeared that second-tier suppliers were prepared to use them until other, independently produced profiles became available. He told us that this should encourage competition in the under 100 kW market to develop. NIE told us that there was no reason why load profiling could not form, almost immediately, the basis for widespread competition in the supply of electricity to all classes of customer in Northern Ireland. Load profiling would enable companies with skills in other retailing activities and with an established customer base to offer electricity to their established customers. NIE stated that this was likely to present an attractive opportunity to companies which already operated payment schemes (for example, store cards) which could be used to collect electricity charges. NIE expected a number of suppliers to enter the market (including RECs, Centrica plc, ESB, British Telecommunications plc, supermarkets and insurance providers).

3.44. To date, second-tier licences have been issued to three companies in Northern Ireland: Eastern, Manweb and Northern.<sup>3</sup> Their sales to date are very small, amounting to about 15 GWh in 1996/97 out of a total of nearly 6,847 GWh, a combined market share of less than 0.5 per cent. We asked these three second-tier suppliers how they had entered Northern Ireland, what their future plans there were and how they saw the supply market developing in Northern Ireland. All three suppliers told us that their new customers in Northern Ireland were part of groups they supplied in England and Wales. Eastern told us that it also moved into Northern Ireland so that it would be ready to take advantage of any supply opportunities that might open up in this market. Northern said that it hoped to gain experience of supplying customers under 100 kW before 1998 (see paragraph 3.61). Eastern and ScottishPower told us that they had no plans to expand their operations in Northern Ireland but Northern said that it was seeking to expand. Eastern and ScottishPower also told us that they would not use Northern Ireland to gain experience of supplying under 100 kW customers and Northern told us that it would be too late to enter Northern Ireland now with a view to gaining experience of supplying under 100 kW customers. Each of them said that they expected competition to develop more slowly in Northern Ireland than in the rest of Great Britain. Their reasons were the role of NIE's PPB (all three suppliers), poor profitability (Eastern-which told us that suppliers needed to achieve something in the order of a 3 per cent return on sales) and lack of load profiling (Northern).

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<sup>1</sup> *The Competitive Electricity Market from 1998: Price Restraints*, OFFER, September 1996.

<sup>2</sup> A method of estimating the use of electricity for each half-hour in a day.

<sup>3</sup> Second-tier licences were issued to Eastern in December 1993, to Manweb in July 1994 and to Northern in April 1993. Manweb is now part of ScottishPower and Northern is now part of CE Electric UK plc.

3.45. NIE told us that many of its larger customers were part of organizations with links outside Northern Ireland. It said that 61 per cent (£122 million) of its supply revenue from its largest 10,000 customers (£200 million) was from groups with links outside Northern Ireland, 28 per cent coming from companies which had their head office in Great Britain. NIE also told us that Midlands Electricity had recently expressed an interest in obtaining a second-tier licence in Northern Ireland (see Appendix 3.2).

3.46. We asked the ten PESs which did not hold second-tier licences in Northern Ireland about their decisions, plans and views on the supply market in Northern Ireland.<sup>1</sup> One PES told us that it did not feel able to comment specifically on the areas raised. Appendix 3.2 summarizes the views of the nine PESs which responded to our questions.

3.47. Appendix 3.2 shows that five PESs considered applying for second-tier licences in Northern Ireland, all five deciding not to proceed. Four PESs have not considered applying for such licences in Northern Ireland. Five PESs said that they were unlikely to apply for second-tier licences in Northern Ireland in the next two to three years but four told us that they might apply for such licences mainly as a service to their national customers. Eight PESs told us that they would not use Northern Ireland to gain experience of supplying under 100 kW customers in preparation for the opening up of this market in the rest of Great Britain in 1998. Six PESs said that competition in Northern Ireland would develop at a slower rate than in the rest of Great Britain. Virtually all PESs which responded (seven) told us that the PPB in Northern Ireland needed to be changed if competition was to develop, one PES also said that margins in Northern Ireland needed to be higher (at least 2 per cent on sales) and one PES told us that there should not be a requirement for half-hour meters.

3.48. NIE told us that the delay in the onset of competition (particularly from Great Britain suppliers) was probably attributable to the fact that such suppliers needed to devote all their resources to adapting to the introduction of competition in April 1994 into the market for customers taking between 100 kW and 1 MW in England and Wales. NIE said that the introduction of competition into this market had given rise to various problems, including problems as to the quality of data from the Electronic Registration System, with meter installation and with settlement based on estimated data.

3.49. The low level of entry into the supply market in Northern Ireland can be contrasted with the high level of entry in England and Wales and to a lesser extent in Scotland. In the over 1 MW market in England and Wales in 1996/97 (the seventh year of competition), second-tier suppliers accounted for 57 per cent of the sites supplied and 72 per cent of output. For the lower tier of customers in the competitive market (100 kW to 1 MW) second-tier suppliers accounted for 38 per cent of the sites supplied and 49 per cent of output in 1996/97 (the third year of competition). In Scotland, entry has been much smaller than in England and Wales- in 1996/97, second-tier suppliers accounted for 17 per cent of sites and 14 per cent of output supplied in the over 1 MW market, and for 9 per cent of the sites supplied and 11 per cent of output in the 100 kW to 1 MW market. All of these market share figures are much higher than that in Northern Ireland (see paragraph 3.44).

3.50. NIE told us that during the forthcoming regulatory period, it might expect to suffer significant erosions of its market share in the supply market in Northern Ireland. However, in its 1996 corporate plan NIE projected sales of second-tier suppliers to reach 103 GWh in 2001/02 out of a total supply of about 7,600 GWh, just over 1 per cent of the total. NIE told us that entry to date had followed a predictable pattern- second-tier suppliers had targeted customers in Northern Ireland which they already served in Great Britain. It said that as these suppliers become better known in Northern Ireland, they would expect to win custom from companies based in Northern Ireland. NIE rejected the view that the scope for entry in Northern Ireland was more limited than in England and Wales because of lack of scope for competition among suppliers in the purchase of generated electricity. It said that such a system meant that all suppliers could compete on a level playing field where the only prerequisite to success was an efficient core supply function.

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<sup>1</sup>ScottishPower does not hold a second-tier licence in Northern Ireland, but it is represented in Northern Ireland by its acquisition of Manweb.

## Usage of electricity

3.51. A recent study<sup>1</sup> showed that in 1994/95, an average household in Northern Ireland spent £7.46 a week on electricity, 2.7 per cent of its total weekly household expenditure. The corresponding figures for the UK as a whole were £6.64 a week, 2.3 per cent of the weekly expenditure of households. The DED told us that the Reward Group found that the required annual income to live in Northern Ireland, after excluding housing costs, was marginally higher than in the rest of the UK. The DED said that fuel costs were some 20 per cent higher for families on low incomes and explained over 50 per cent of their overall higher cost of living. It suggested that the high price of electricity was a significant burden on low-income households even though it did not appear to impact heavily on the costs of companies operating in Northern Ireland. The DED told us that the Reward Group data showed that the current pricing policy in Northern Ireland was significantly more regressive than elsewhere, especially as Northern Ireland had more low-income households than the UK as a whole.

3.52. Table 3.6 shows the breakdown of NIE's customers and its sales by customer type.

TABLE 3.6 Customer numbers and sales by types of customer

	Year to March					Annual growth 1992 to 1996 %
	1992	1993	1994	1995	1996	
<i>Customer numbers ('000)</i>						
Domestic	553.7	562.6	571.5	581.1	591.6	1.7
Commercial	51.2	51.2	51.4	51.9	52.2	0.5
Industrial	<u>10.2</u>	<u>10.5</u>	<u>10.7</u>	<u>10.8</u>	<u>10.9</u>	1.5
Total	615.1	624.2	633.6	643.8	654.6	1.6
<i>Sales (TWh)</i>						
Domestic	2.44	2.55	2.61	2.63	2.71	2.7
Commercial	1.78	1.81	1.86	1.90	1.95	2.3
Industrial	<u>1.78</u>	<u>1.86</u>	<u>1.94</u>	<u>2.01</u>	<u>2.06</u>	3.7
Total	6.00	6.22	6.41	6.53	6.72	2.9
<i>Sales per customer (MWh)</i>						
Domestic	4.40	4.53	4.57	4.52	4.57	1.0
Commercial	34.69	35.40	36.16	36.51	37.26	1.8
Industrial	174.24	177.88	181.99	185.98	189.85	2.2
Average	9.75	9.96	10.12	10.14	10.26	1.3

Source: MMC calculations on data provided by NIE.

3.53. In 1995/96 NIE sold 6.7 TWh of electricity to its 654,623 customers (at March 1996) with an average domestic customer using 4.6 MWh, an average commercial customer using 37.3 MWh and an average industrial customer using 189.9 MWh.

3.54. Domestic customers accounted for by far the largest proportion of the total by number (about 90 per cent in 1995/96), but for a much smaller proportion of sales (about 40 per cent). For commercial and industrial customers the reverse is true: in 1995/96, commercial customers accounted for 8 per cent of all customers but for 29 per cent of sales whilst industrial customers accounted for less than 2 per cent of all customers but for 31 per cent of sales.

3.55. The number of customers served by NIE has grown steadily over the past five years: the average annual growth rate between 1991/92 and 1995/96 was 1.6 per cent. The growth in the number of domestic and industrial customers was similar to that of the total (1.7 per cent and 1.5 per cent respectively) whilst the growth in commercial customers was about one percentage point lower (0.5 per cent).

3.56. The demand for electricity in Northern Ireland has shown steady growth over a long period: between 1971 and 1991 there was an average annual growth rate of 2.3 per cent. In the past five years, average growth

<sup>1</sup>Policy Planning Research Unit Monitor, dated October 1995.

has been slightly higher than the longer-term trend, at 2.9 per cent, with the highest growth being in the industrial sector. Just over half of the overall growth is accounted for by the growth in customer numbers.

3.57. NIE told us that it expected the demand for electricity to continue to grow during the rest of this decade, the rate depending on the level of economic activity, the price of competing fuels and the potential loss of market share from the emerging natural gas industry. The predictions for growth in NIE's 1996 corporate plan are shown in Table 3.7.

TABLE 3.7 Predicted sales of electricity by NIE

	<i>TWh</i>						
	<i>Year to March</i>						<i>Annual growth</i>
	<i>1997</i>	<i>1998</i>	<i>1999</i>	<i>2000</i>	<i>2001</i>	<i>2002</i>	<i>1997 to 2002</i> %
Domestic	2.72	2.72	2.75	2.78	2.81	2.84	0.9
Commercial	1.99	2.06	2.09	2.11	2.14	2.16	1.7
Industrial	<u>2.13</u>	<u>2.26</u>	<u>2.32</u>	<u>2.37</u>	<u>2.43</u>	<u>2.50</u>	3.2
Total	6.83	7.04	7.15	7.26	7.37	7.50	1.9

Source: NIE.

3.58. NIE told us that its latest predictions for the year to March 1997 indicated that the rate of growth would be in the region of 2.8 per cent, higher than that shown in its corporate plan. NIE told us that growth in 1996/97 had been much stronger than predicted at the time of the preparation of the corporate plan. Table 3.7 shows average annual growth for total sales for the whole period of 1.9 per cent with by far the highest growth being expected from industrial customers-3.2 per cent.

3.59. Customer numbers and sales to different types of customers can be broken down in other ways. One way which is important for our inquiry is to split customer numbers and sales between those customers using more than 1 MW of electricity and those using 1 MW or less, since the DG's proposed price control for NIE's Supply Business does not cover those customers using more than 1 MW. Table 3.8 shows such a split.

TABLE 3.8 Customer numbers and sales by types of customer

	<i>Year to March</i>							<i>Annual growth</i>
	<i>1996</i>	<i>1997</i>	<i>1998</i>	<i>1999</i>	<i>2000</i>	<i>2001</i>	<i>2002</i>	<i>1997 to 2002</i> %
<i>Customer numbers ('000)</i>								
Over 1 MW	0.11	0.11	0.11	0.11	0.11	0.12	0.12	1.1
1 MW or less	<u>654.51</u>	<u>655.33</u>	<u>661.90</u>	<u>668.53</u>	<u>675.23</u>	<u>682.00</u>	<u>688.84</u>	1.0
Total	<u>654.62</u>	<u>655.44</u>	<u>662.01</u>	<u>668.64</u>	<u>675.35</u>	<u>682.12</u>	<u>688.96</u>	1.0
<i>Sales (TWh)</i>								
Over 1 MW	1.30	1.34	1.39	1.43	1.46	1.49	1.54	2.8
1 MW or less	<u>5.42</u>	<u>5.50</u>	<u>5.66</u>	<u>5.72</u>	<u>5.80</u>	<u>5.88</u>	<u>5.96</u>	1.6
Total	<u>6.72</u>	<u>6.83</u>	<u>7.04</u>	<u>7.15</u>	<u>7.26</u>	<u>7.37</u>	<u>7.50</u>	1.9

Source: MMC calculations on data provided by NIE.

3.60. Customers using more than 1 MW account for a negligible proportion of total customers but for 19 per cent of all sales. NIE is expecting faster growth in sales to these large customers (2.8 per cent annual average) than in sales to other customers (1.6 per cent) over the period to 2002.

3.61. We asked NIE to provide us with a breakdown of its customers splitting out those using 100 kW to 1 MW of electricity. This split, together with the information on customers using more than 1 MW of electricity, enables us to compare the situation in Northern Ireland with the competitive supply market in England and Wales. Supply competition was introduced in England and Wales for customers using more than 1 MW in April 1990 and for customers using 100 kW to 1 MW in April 1994, and is planned to be extended to the remaining customers in 1998.

3.62. In making these comparisons it is important to keep in mind the big difference in the size of the electricity markets in England and Wales and in Northern Ireland. Table 3.9 shows the comparison between England and Wales, and Northern Ireland.

TABLE 3.9 A breakdown of sites and sales by customer type in England and Wales and in Northern Ireland in 1995/96

Customer type	Number of sites in:		Percentage of sales in:	
	England & Wales	Northern Ireland	England & Wales	Northern Ireland
Above 1 MW	5,000	110	30	19
100 kW-1 MW	45,000	4,000	15	24
Less than 100 kW	+ 22,000,000	650,500	<u>55</u>	<u>57</u>
			100	100

Source: MMC calculation on OFFER data and on data provided by NIE.

## Prices

3.63. Before privatization electricity prices in Northern Ireland were linked to prices in Great Britain by Government action. The need for this arose because of Northern Ireland's high dependence on oil-fired generation and the relatively high price of oil. NIE told us that between April 1981 and March 1990 electricity prices in Northern Ireland benefited from a Government subsidy which totalled £440 million. NIE told us that, with a fall in world oil prices and the conversion of Kilroot power station to dual firing (coal and oil) from April 1990, NIE began to move towards fully cost-reflective prices.

3.64. Nevertheless there have been three further subsidy schemes during the 1990s—two transitional relief schemes for industrial users (see paragraph 3.65) and one for all customers (see paragraph 3.66).

3.65. In the course of NIE's 1992/93 electricity price-setting exercise, the DED told us that it became apparent that the existing price structure did not reflect costs and that domestic customers were cross-subsidizing industrial users. This type of cross-subsidy is not allowed under current legislation. However, since an immediate move towards fully cost-reflective electricity prices would have involved major increases for industrial users, the DED and NIE introduced two separate transitional relief schemes, each covering a three-year period, to spread the impact over time. The total cost of these schemes was £16.4 million.

3.66. The third subsidy is related to the abolition of the nuclear levy in Great Britain. The DED told us that this financial assistance was to ensure that customers in Northern Ireland shared in the benefits which their counterparts in Great Britain would enjoy as a result of the earlier than planned abolition of the nuclear levy following the privatization of certain nuclear power stations in 1996. The DED will receive £60 million over three years (1996/97 to 1998/99). The DED told us that the first tranche (£15 million) of subsidy in 1996/97 was allocated to reduce NIE's April 1996 tariffs by an average of 3 per cent. The DED said that it was considering, in consultation with the DG and NIE, how the remaining £45 million should be allocated.

3.67. Most of NIE's tariffs fall into two broad categories: quarterly tariffs and monthly tariffs. Quarterly tariffs, applicable to most domestic, small commercial and industrial customers, comprise a standing charge and one or more unit (kWh) rates. Monthly tariffs are available to NIE's larger commercial and industrial customers (see Appendix 3.3 for a description of NIE's tariffs to different types of customer).

3.68. NIE told us that prices in Northern Ireland were at the high end of the range of prices in the UK as a whole and that they would remain so. It said that the physical characteristics of the Northern Ireland electricity system were such that it was relatively more costly to operate and that NIE therefore required higher prices to service the company's assets. It pointed out that, in addition, the cost of energy to NIE, produced by the independent generators, was some 25 per cent higher than the wholesale energy cost in England and Wales.

3.69. NIE told us that its domestic electricity prices had fallen in real terms by about 2 per cent over the last five years and that in real terms they were lower than they had been ten years ago. NIE's estimates of its

price trends for the last five years are different from those based on published data by the Centre for the study of Regulated Industries (CRI) (see Table 3.10). NIE told us that the difference in real price movements over the last five years stemmed from different inflation factors assumed for the year to March 1997. It said that inherent in its statement that prices had reduced by around 2 per cent over the past five years was an assumption that inflation in the year to March 1997 would be 3.5 per cent, a figure that was consistent with the planning assumptions used at the time.

3.70. NIE compared its domestic tariffs in 1996/97 with those of the Great Britain PESs which it regarded as being most comparable, that is, companies with similar regions of dispersed population—Manweb, SWALEC and SWEB. NIE estimated that in 1996/97 its domestic tariffs, which accounted for 79 per cent of its customers, were 9 per cent higher than those of SWALEC, 12 per cent higher than those of Manweb and 15 per cent higher than those of SWEB.

3.71. The DG told us that his estimates showed that NIE's prices rose in nominal terms by 11 per cent between 1992/93 and 1996/97, the current price control period.<sup>1</sup> This estimate is broadly in line with the nominal data behind Table 3.10. The DG said that the increase in NIE's prices would have been higher over this period if it had not been for two mitigating factors. First, the first tranche (£15 million) of the current subsidy scheme was released in 1996/97 (see paragraph 3.66). Secondly, there was a projected under-recovery of around £7 million in revenue across NIE's regulated businesses in 1996/97 which NIE could recoup from customers in 1997/98; in 1992/93 there had been an over-recovery of about £5 million which had the effect of raising prices in the base year. The DG said that in the absence of the subsidy and of the under- and over-recoveries, NIE's electricity prices would have increased by 19 and not 11 per cent.<sup>2</sup>

3.72. Using the CRI's published data, Table 3.10 compares NIE's domestic prices for each year since 1990/91 with the unweighted averages for Great Britain and for Manweb, SWALEC and SWEB. Appendix 3.4 shows domestic prices for NIE and for all the other PESs in Great Britain for the same time period.

TABLE 3.10 NIE's domestic prices and average domestic prices in Great Britain\*

	<i>p/kWh, 1996/97 prices†</i>							<i>Change 1990/91 to 1996/97 %</i>
	<i>Year to March</i>							
	<i>1991</i>	<i>1992</i>	<i>1993</i>	<i>1994</i>	<i>1995</i>	<i>1996</i>	<i>1997</i>	
Great Britain‡	9.58	9.96	9.76	9.51	9.12	8.63	8.48	-11.6
Manweb, SWALEC and SWEB‡	10.25	10.65	10.46	10.27	9.86	9.35	9.18	-10.5
NIE	10.09	10.32	10.29	10.41	9.99	10.29	10.29	+ 2.0

*Source:* MMC calculations on CRI data.§

\*Based on the standard domestic tariff at 31 March of each year and assuming an annual consumption of 3,300 kWh. Rebates and VAT are excluded.

†Using April RPI.

‡Unweighted average.

§Excludes the effect of the fall in the levy in Great Britain which reduced prices in late 1996 and early 1997. OFFER provided us with its estimates of prices in 1996/97 which included the reductions due to the fall in the levy. These showed an average Great Britain price of 8.18p per kWh (a real fall of 14.6 per cent since 1990/91) and an average for Manweb, SWALEC and SWEB of 8.93p per kWh (a 12.9 per cent real fall since 1990/91).

<sup>1</sup>NIE told us that OFREG included a price increase which occurred under Government ownership. NIE said that removing the effect of that increase reduced the nominal increase in prices to 10 per cent.

<sup>2</sup>NIE told us that OFREG had ignored the effect of transitional relief which lowered tariffs in 1992/93 to 1994/95. It said that taking account of this relief and correcting for the fact that there were now unlikely to be any over-/under-recoveries in the current year, the underlying increase in prices amounted to 14 per cent (3 per cent in real terms) and not 19 per cent as suggested by OFREG.

3.73. Table 3.10 shows that between 1990/91 and 1996/97 domestic prices in Great Britain have fallen, in real terms, by 11.6 per cent while NIE's have increased by 2 per cent. With 1992/93 as the base year the picture is similar-domestic prices in Great Britain down in real terms by 13 per cent compared with no change in NIE's real prices. By 1996/97 NIE's prices were 21 per cent higher than the average in Great Britain. The gap between prices in Great Britain and in Northern Ireland began to increase in 1993/94 when domestic prices in Great Britain fell, in real terms, by 2.6 per cent and NIE's real prices increased by 1.2 per cent. Since this time Great Britain prices have fallen while NIE's prices have been broadly constant. Part of the reason for this growing difference between domestic prices in Great Britain and in Northern Ireland is the tightening of the price controls in Great Britain which began to occur in 1993/94 (see Appendix 3.5). The DG told us that both electricity prices and consumption were higher for households in Northern Ireland compared with Great Britain. He said that latest available data for 1996/97 indicated that standard domestic prices in Northern Ireland were 24 per cent above those in Great Britain. The DG stated that given the absence of natural gas in Northern Ireland, households in the province on the standard domestic tariff on average consumed more electricity than the average standard domestic tariff household in Great Britain, 3,700 kWh a year in Northern Ireland compared with 3,300 in Great Britain. The DG said that based on prices and usage, the average standard tariff household bill in Northern Ireland was 36 per cent higher than that in Great Britain, £374 a year in Northern Ireland<sup>1</sup> compared with £274 in Great Britain.<sup>2</sup>

3.74. The table also shows the average prices for Manweb, SWALEC and SWEB, the three comparable RECs as seen by NIE. Between 1990/91 and 1996/97 the average price for these three PESs fell, in real terms, by 10.5 per cent. In 1996/97 NIE's price for an average domestic customer was 12 per cent higher than the average price for these three PESs.

3.75. Table 3.11 shows that NIE's domestic prices were towards the higher end of other PESs' domestic prices up to 1992/93, since when it has had the highest prices.

3.76. NIE told us that price differentials needed to be assessed by examining the components of the final bills. It provided us with domestic prices for 1996/97 broken down into energy components-energy (generation), transmission, distribution, supply, levy and subsidy. Table 3.12 shows the breakdown of domestic electricity prices for the unweighted Great Britain average, for the unweighted average for Manweb, SWALEC and SWEB, and for Northern Ireland (see Appendix 3.6 for the breakdown of NIE and all of the PESs).

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<sup>1</sup>Based on 3,700 kWh a year.

<sup>2</sup>Based on 3,300 kWh a year.

TABLE 3.11 **Ranking of electricity suppliers on the basis of the standard domestic tariff**

		<i>Year to March</i>						
		<i>1991</i>	<i>1992</i>	<i>1993</i>	<i>1994</i>	<i>1995</i>	<i>1996</i>	<i>1997</i>
Highest price ↑ ↓ Lowest price	SWALEC	SWALEC	SWALEC	NIE	NIE	NIE	NIE	NIE
	SWEB	SWEB	SWEB	SWEB	SWEB	SWEB	SWALEC	SWALEC
	Manweb	Manweb	NIE	SWALEC	SWEB	SWEB	Manweb	Manweb
	NIE	Northern	Manweb	Manweb	Manweb	Manweb	SWEB	SWEB
	Northern	NIE	Northern	Northern	Northern	Northern	Northern	London
	London	London	London	Seeboard	London	London	London	Northern
	Yorkshire	Midland	Seeboard	London	Southern	ScottishPower	ScottishPower	Eastern
	Midland	Seeboard	East Midlands	NORWEB	Seeboard	Southern	Southern	ScottishPower
	Seeboard	Yorkshire	Yorkshire	Southern	Eastern	Eastern	East Midlands	SHE
	Southern	Southern	Midland	Eastern	East Midlands	East Midlands	Eastern	Southern
	NORWEB	NORWEB	Southern	East Midlands	Yorkshire	Yorkshire	Midland	Midland
	East Midlands	East Midlands	NORWEB	Yorkshire	ScottishPower	ScottishPower	Yorkshire	NORWEB
	Eastern	Eastern	Eastern	Midland	Midland	Midland	SHE	East Midlands
	SHE	SHE	SHE	SHE	SHE	SHE	Seeboard	Seeboard
	ScottishPower	ScottishPower	ScottishPower	ScottishPower	NORWEB	NORWEB	NORWEB	Yorkshire

*Source:* MMC calculations based on CRI data.

\*Based on the standard domestic tariff at 31 March of each year and assuming an annual consumption of 3,300 kWh. Rebates and VAT are excluded.

TABLE 3.12 Breakdown of NIE's domestic prices and those in Great Britain in 1996/97\*

	<i>NIE</i> £ per year	<i>Average of</i> <i>Great Britain</i> † £ per year	<i>Average of</i> <i>Manweb,</i> <i>SWALEC</i> <i>and SWEB</i> † £ per year	<i>Difference</i> <i>between NIE</i> <i>and Great Britain</i> %	<i>Difference</i> <i>between NIE and</i> <i>Manweb, SWALEC</i> <i>and SWEB</i> %
Energy	175	132	132	33	33
Transmission	25	17	20	50	25
Distribution	116	81	97	43	20
Supply	29	25	26	18	12
Sub-total‡	345	254	276	36	25
Levy	3	25	27	-88	-89
Subsidy	-8				
Total‡	340	280	303	22	12
Of which:‡					
T&D	141	98	118	44	19
T&D and Supply	170	122	144	39	18

Source: MMC calculations based on data provided by NIE.

\*Based on the standard domestic tariff at 31 March of each year and assuming an annual consumption of 3,300 kWh. Rebates and VAT are excluded. Allocations to the components are NIE's estimates.

†Unweighted average.

‡Totals may not sum due to rounding.

3.77. The table shows that in terms of T&D and supply NIE's domestic prices were 39 per cent higher than the Great Britain average and 18 per cent higher than the average of Manweb, SWALEC and SWEB.

3.78. We asked NIE to provide us with its estimates of its domestic electricity prices and those of the 14 PESs in Great Britain, broken down by cost category, for each year between 1990/91 and 2001/02. We asked NIE to estimate its future prices under three scenarios: the DG's proposal, NIE's composite proposal to the DG and NIE's proposal to the MMC. These estimates for NIE's prices, for the unweighted average for Great Britain and for the unweighted average for Manweb, SWALEC and SWEB are shown in Table 3.13. The DG told us that he had not verified the accuracy of these figures. He said that in practice he would expect to the extent that NIE and Great Britain prices were comparable-NIE's prices to leapfrog below Great Britain price levels given that the price control review in Northern Ireland followed that of OFFER.

3.79. Table 3.13 shows that in 2001/02 NIE's domestic prices, based on its proposal to the MMC, would be 33 per cent higher than those in Great Britain compared with 21 per cent higher in 1996/97 and 5 per cent higher than in 1990/91. The equivalent figures for NIE compared with the average for Manweb, SWALEC and SWEB would be 23 per cent (2001/02), 12 per cent (1996/97) and -1 per cent (1990/91). In terms of prices for T&D and Supply, again based on NIE's proposal to the MMC, the differences between Great Britain and Northern Ireland would be 34 per cent (2001/02), 39 per cent (1996/97) and -3 per cent (1990/91). The equivalent figures for NIE compared with the average for Manweb, SWALEC and SWEB would be 14 per cent (2001/02), 18 per cent (1996/97) and -14 per cent (1990/91).

3.80. NIE told us that Table 3.13 also showed the large decreases in its prices in the first year of the forthcoming price control (between 1996/97 and 1997/98): under the DG's proposals, prices would fall by 30 per cent; under NIE's proposals to the MMC, prices would decrease by over 12 per cent and under NIE's proposals to the DG they would have fallen by just over 18 per cent. NIE said that based upon its proposal to the DG the yearly average of the aggregate domestic price for T&D and supply for the whole period (1997/98 to 2001/02) showed an annual saving of £29 a year compared with 1996/97 (a 17 per cent reduction), the equivalent figure for its proposal to the MMC was just over £16 (a fall of 9 per cent) and £47 (a 28 per cent decrease) for the DG's proposal.<sup>1</sup> NIE told us that its proposals to the DG would have resulted in its domestic prices being broadly similar to those of the three most comparable RECs.

<sup>1</sup>These calculations assume that without the proposals the price of T&D and supply would have remained at £170 a year.

TABLE 3.13 NIE's estimates of its domestic prices, average for Great Britain and average for Manweb, SWALEC and SWEB

	<i>Out-turn prices</i>											
	<i>Years to March</i>											
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
<i>The DG's proposals*</i>												
Total	273	297	309	316	312	332	340	300	295	306	322	329
Of which:												
T&D	87	95	99	124	127	131	141	101	102	104	106	107
Supply	55	59	61	26	28	33	29	18	18	19	19	20
T&D and Supply	142	154	160	150	155	164	170	119	120	123	125	127
<i>NIE's proposals to the DG*</i>												
Total	273	297	309	316	312	332	340	320	315	324	339	345
Of which:												
T&D	87	95	99	124	127	131	141	117	118	118	119	119
Supply	55	59	61	26	28	33	29	22	22	23	23	24
T&D and Supply	142	154	160	150	155	164	170	139	140	141	142	143
<i>NIE's proposals to the MMC*</i>												
Total	273	297	309	316	312	332	340	330	326	337	353	361
Of which:												
T&D	87	95	99	124	127	131	141	127	129	131	133	135
Supply	55	59	61	26	28	33	29	22	22	23	23	24
T&D and Supply	142	154	160	150	155	164	170	149	151	154	156	159
<i>Average prices in Great Britain</i>												
Total	259	287	293	289	284	278	280	261	263	265	268	272
Of which:												
T&D	87	97	103	108	111	102	98	95	94	94	94	94
Supply†	60	58	51	33	18	21	25	25	25	25	25	25
T&D and Supply‡	147	154	154	141	129	123	122	119	119	119	119	119
<i>Average prices of Manweb, SWALEC and SWEB</i>												
Total	277	307	314	312	308	302	303	283	285	287	290	294
Of which:												
T&D	104	116	125	133	137	123	118	114	114	113	113	113
Supply‡	62	57	49	30	13	21	26	26	26	26	26	26
T&D and Supply	166	174	174	163	150	143	144	140	140	139	139	139

Source: NIE.

\*For the period 1997/98 onwards.

†Used as a balancing item for the years 1990/91 to 1995/96.

‡Totals may not sum due to rounding.

3.81. NIE provided us with price comparisons for its industrial and commercial customers (see Appendix 3.3 for a description of NIE's tariffs to different types of customer). NIE pointed out that industry and business in Northern Ireland tended not to be energy-intensive. Its comparisons, with one exception, were based on its prices against those of comparable RECs, not all RECs. These showed:

- For small commercial users (representing 69 per cent of all commercial users) NIE's prices were between 5 and 7 per cent higher than those for comparable RECs.
- For large commercial or industrial users on NIE's seasonal time-of-day tariff (1,100 customers) NIE's prices were between 9 and 12 per cent higher than those for comparable RECs for customers with a typical 30 per cent load factor.
- For large commercial or industrial users on individual contracts (400 customers)<sup>1</sup> NIE's prices were between 4 and 31 per cent higher than those in the UK (not those of comparable RECs).<sup>2</sup>
- For large commercial or industrial users on individual contracts (400 customers) NIE's prices were between 14 and 18 per cent higher than those for comparable RECs without load management but with load management its prices were between 5 per cent higher and 3 per cent lower than those for comparable RECs.<sup>3</sup>
- For medium-sized commercial or industrial users on NIE's monthly maximum demand tariff (2,800 customers) NIE's prices were between 19 and 22 per cent higher than those for comparable RECs.

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<sup>1</sup>NIE pointed out that it was difficult to obtain price comparisons due to the confidential nature of these contracts.

<sup>2</sup>NIE told us that these comparisons were based on published work by the Electricity Association. The 31 per cent difference was for a customer using 500 kW with a 40 per cent load factor and the 4 per cent difference was for a customer using 10,000 kW with a 60 per cent load factor.

<sup>3</sup>Based on NIE's in-house models.